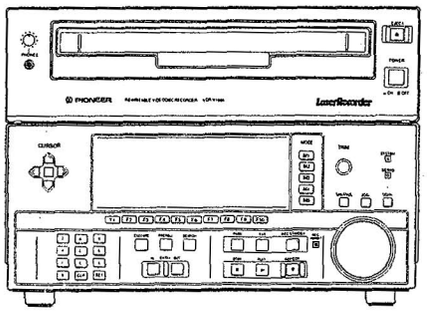
Service Manual

PIONEER®
The Art of Entertainment



ORDER NO.
RRV1007

REWRITABLE VIDEODISC RECORDER

VDR-V1000A

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	VDR-V1000A		
KU/CA	○	AC120V	

CONTENTS

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols -▮▭▭- (fast operating fuse) and/or -▮▭⊠- (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible -▮▭▭- (fusible de type rapide) et/ou -▮▭⊠- (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

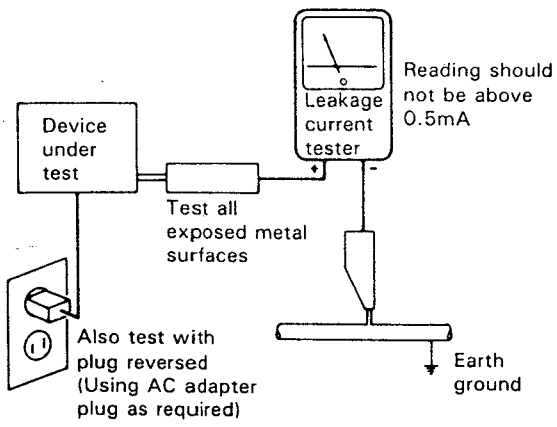
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

MEMO

2. EXPLODED VIEWS AND PARTS LIST

NOTES :

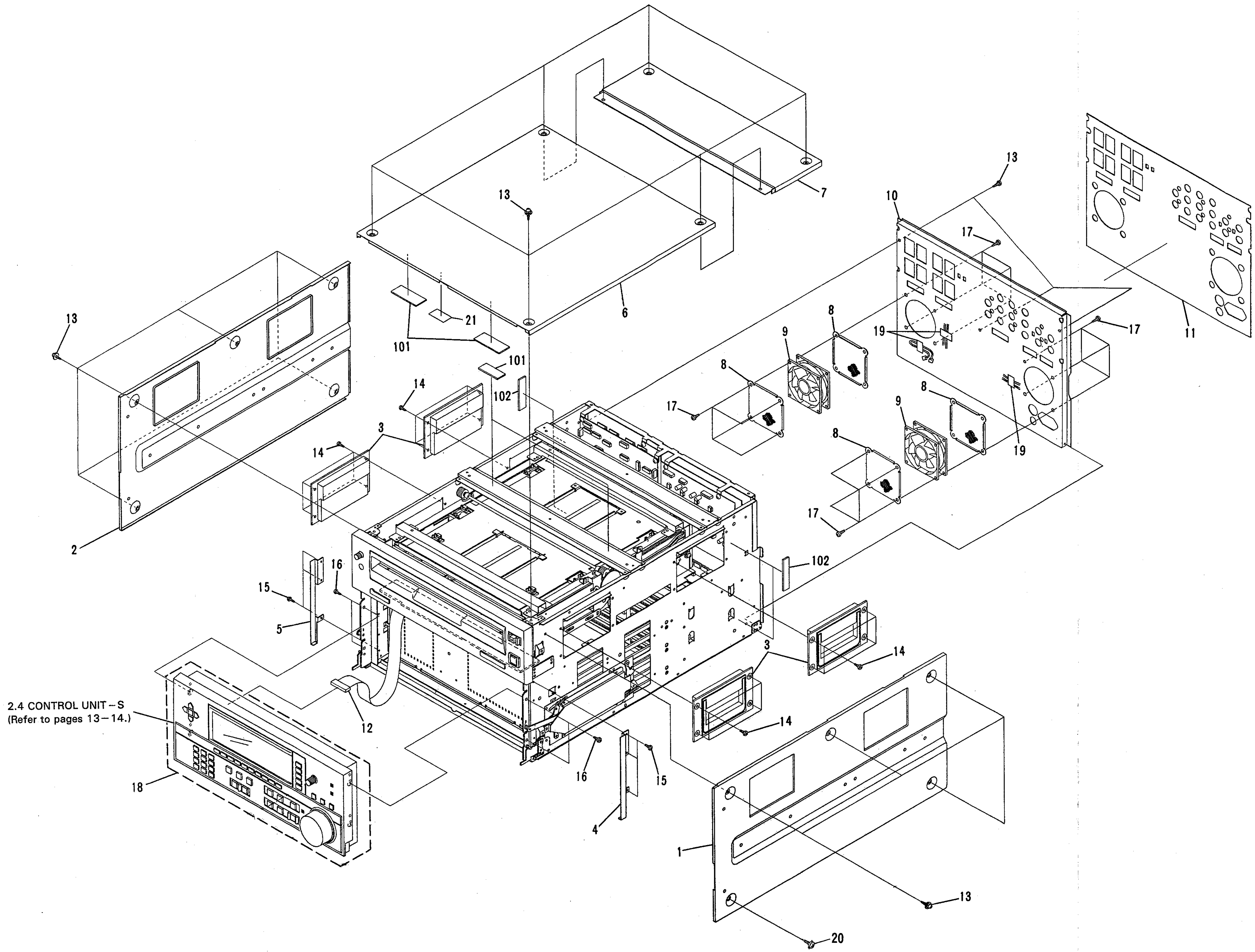
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

2.1 EXTERIOR 1

Parts List of Exterior 1

Mark	No.	Description	Parts No.
	1	SIDE PANEL (R)	DNE1136
	2	SIDE PANEL (L)	DNE1137
	3	HANDLE	DMX1003
	4	FRONT STAY R	DNE1138
	5	FRONT STAY L	DNE1139
	6	TOP PANEL (A)	DNE1135
	7	TOP PANEL (B)	DNE1140
	8	FAN FILTER	DNH1548
⚠	9	FAN MOTER	DXM1048
	10	REAR PANEL	DNC1183
	11	REAR INDICATING SHEET	DAH1734
	12	FRONT PANEL CONNECTOR Assy	DKP2157
	13	SCREW	FMT40P060FZK
	14	SCREW	BMZ40P080FMC
	15	SCREW	BBZ30P050FZK
	16	SCREW	AMZ30P060FZK
	17	SCREW	PBZ50P100FZK
◉	18	CONTROL UNIT-S	DXX2137
	19	SHEET	VEX1022
	20	SCREW	BMZ40P100FZK
	21	65 LABEL	ORW1069

Mark	No.	Description	Parts No.
NSP	101	SPACER RUBBER	DEB1171
NSP	102	SIDE SPACER	DEB1178


2.4 CONTROL UNIT-S
(Refer to pages 13-14.)
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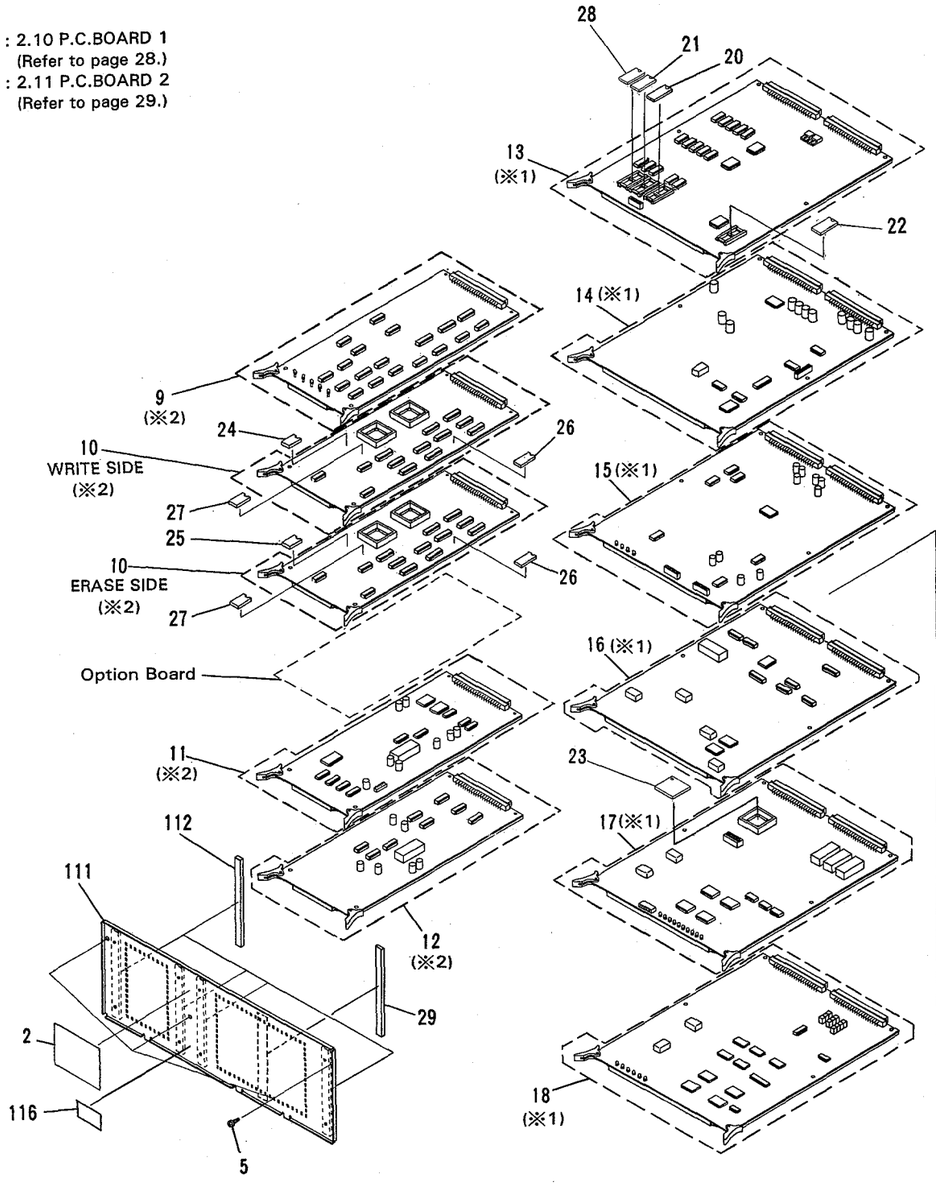
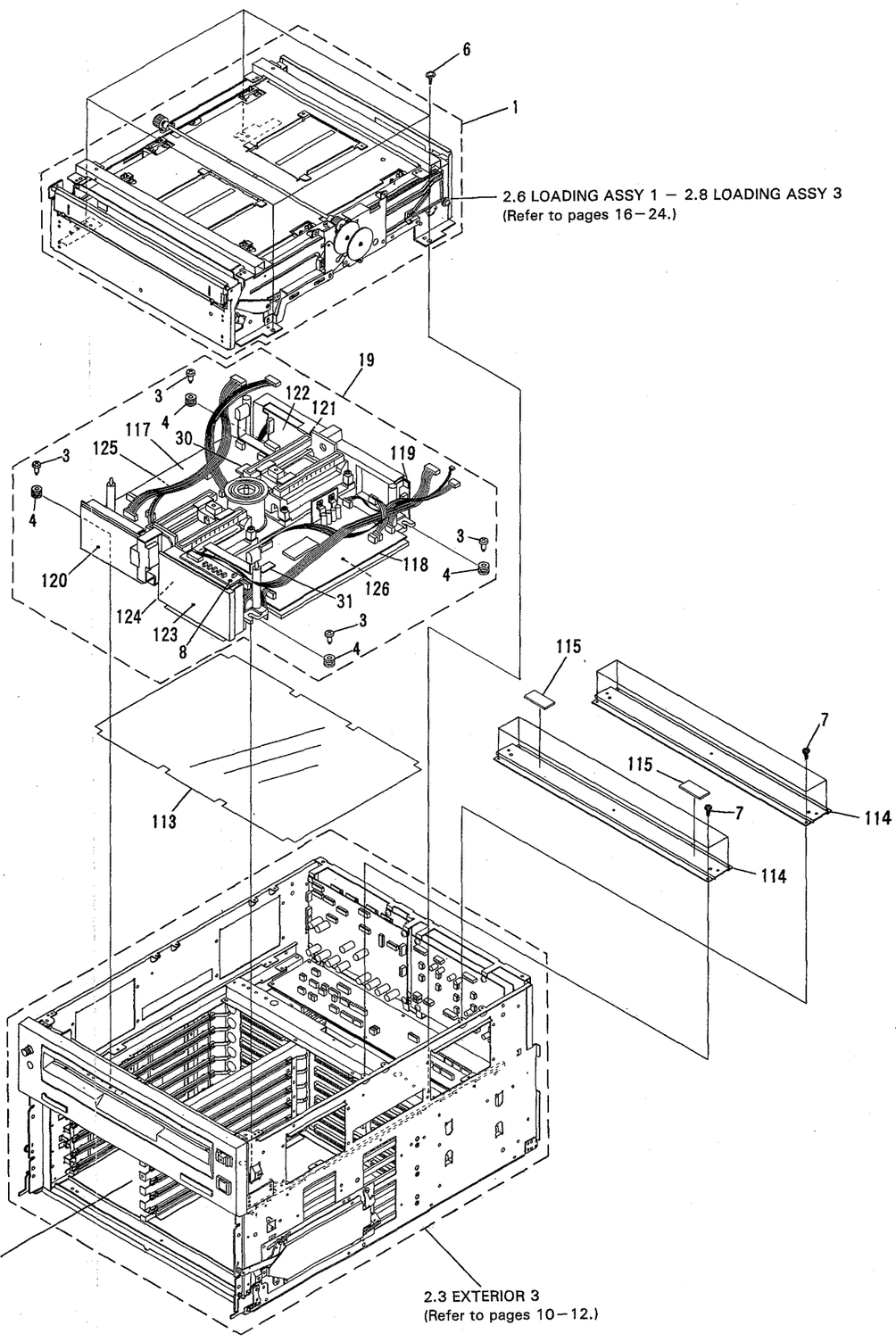
2.2 EXTERIOR 2

(※1) : 2.10 P.C.BOARD 1
(Refer to page 28.)
(※2) : 2.11 P.C.BOARD 2
(Refer to page 29.)





Parts List of Exterior 2

Mark	No.	Description	Parts No.
◉	1	LOADING MECHA Assy-S	DXX1784
	2	POSITION LABEL	DRW1314
	3	FLOAT SCREW B	VBA1013
	4	FLOAT RUBBER A	VEB1095
	5	SCREW	FMT40P060FZK
	6	SCREW	PMB40P080FMC
	7	SCREW	BBZ30P060FMC
	8	SENS Assy	DWX1217
◉	9	SPDL UNIT-S	DWX1344
◉	10	ADDC UNIT-S	DWX1428
◉	11	VAR1 UNIT-S	DWX1369
◉	12	VAR2 UNIT-S	DWX1347
◉	13	MPU UNIT-S	DWX1339
◉	14	AMOD UNIT-S	DWX1348
◉	15	ADEM UNIT-S	DWX1340
◉	16	VAPB UNIT-S	DWX1367
◉	17	VDEC UNIT-S	DWX1368
◉	18	VENC UNIT-S	DWX1427
◉	19	SERVO MECHA Assy-S	DXX2151
	20	Programed to 27C256AK-10 (IC102)	DYW1306
	21	Programed to 27C256AK-10 (IC103)	DYW1307
	22	Programed to 27C256AK-12 (IC502)	DYW1148
	23	Programed to HD647180X0CP6 (IC37)	DYW1311
	24	P-ROM for A UNIT (IC20)	DYW1162
	25	P-ROM for B UNIT (IC20)	DYW1163
	26	PLD (ADDC) (IC7)	DYW1164
	27	P-ROM A/B (IC6)	DYW1161
	28	Programed to 27C256AK-10 (IC104)	DYW1308
	29	GEL	DEC1657
	30	Programed to TIBPAL16L8 (IC106)	DYW1150
	31	Programed to TIBPAL16L8 (IC606)	DYW1155

Mark	No.	Description	Parts No.
NSP	111	COVER PLATE Assy	DXB1375
NSP	112	STOPPER RUBBER	DEB1170
NSP	113	INSULATION SHEET	DEC1481
NSP	114	BRIDGE	DND1096
NSP	115	SPACER RUBBER	DEB1171
NSP	116	CAREER LABEL	VRW-348
NSP	117	SVAW Assy	DWP1035
NSP	118	SVAE Assy	DWP1036
NSP	119	HE-W Assy	DWF1002
NSP	120	HE-E Assy	DWF1003
NSP	121	APC1W Assy	DWP1031
NSP	122	APC2W Assy	DWP1032
NSP	123	APC1E Assy	DWP1033
NSP	124	APC2E Assy	DWP1034
NSP	125	DRVW Assy	DWP1037
NSP	126	DRVE Assy	DWP1038

2.3 EXTERIOR 3

Parts List of Exterior 3

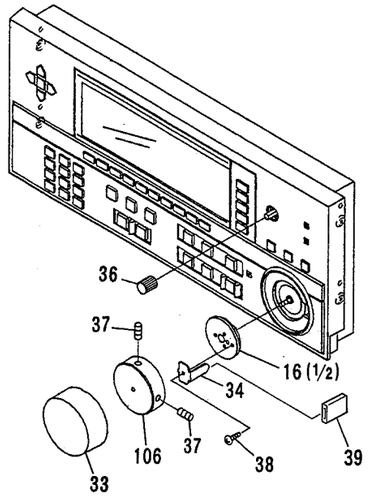
Mark	No.	Description	Parts No.
⚠	1	PSY Assy (Switching Regulator)	DWR1148
	2	CAP (For leg)	DEC1190
◉	3	FPCN Assy	DWX1211
⚠	4	POWER SWITCH (S1)	DSA1010
⚠	5	CAPACITOR (C1, C2)	RCG-009
⚠	6	CIRCUIT PROTECTER	DST1001
⚠	7	NOISE FILTER (Inlet Type)	DTX1002
	8	COVER (For P. C. Board)	DEC1443
	9	EARTH TERMINAL	DKE-101
	10	SCREW	IBZ30P080FCC
	11	SCREW	BBZ30P060FMC
	12	SCREW	PMB40P080FMC
	13	SCREW	PMH30P080FMC
	14	SCREW	PMH40P160FMC
	15	SCREW	BBZ40P080FMC
	16	SCREW	BBZ30P080FZK
	17	SCREW	PMB40P080FMC
	18	CONNECTOR Assy	DKP2297
	19	EARTH LAG	DDX1112
	20	WIRE Assy	DDX1113
	21	CONNECTOR Assy	DKP2296
NSP	101	BOTTOM PLATE Assy	DXA1290
NSP	102	FRONT PLATE	DNH1716
NSP	103	MECHA FRAME	DND1095
NSP	104	POWER SWITCH COVER	DNF1394
NSP	105	NYLON RIVET	DEC-117
NSP	106	ACI HOLDER	DNF1358
NSP	107	EDGE GUARD A	DEB1184
NSP	108	EDGE GUARD B	DEB1185

2.4 CONTROL UNIT – S

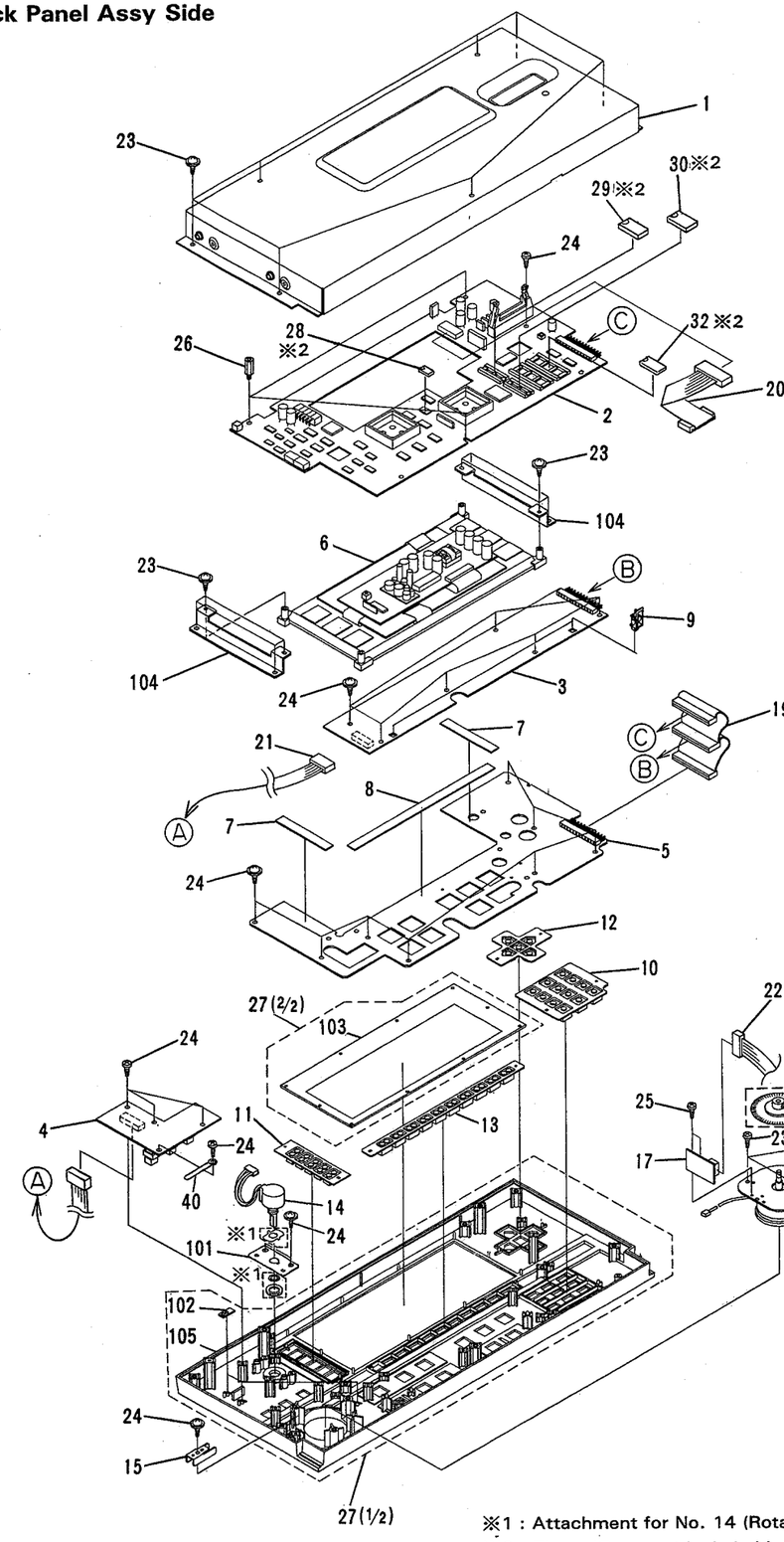
Parts List of Control Unit – S

Mark	No.	Description	Parts No.
	1	BACK PANEL Assy	DXA1294
	2	FR1 Assy	DWG1369
	3	FR2M Assy	DWG1227
	4	FR2S Assy	DWG1228
	5	FR3 Assy	DWG1223
	6	EL DISPLAY	DAW1014
	7	RUBBER SHEET (S)	DEB1165
	8	RUBBER SHEET (M)	DEB1167
	9	CARD EDGE SPACER	DEC1394
	10	TEN KEY	DNV1002
	11	MODE KEY	DNV1003
	12	CURSOR KEY	DNV1004
	13	FUNCTION KEY	DNV1001
	14	ROTARY ENCODER	DXP1023
	15	CLUTCH SPRING	DBK1058
	16	CLUTCH Assy	DXB1310
	17	JOG Assy	DWG1229
	18	DISC SLIT	DXB1302
	19	FRONT PANEL CONNECTOR Assy	DKP2158
	20	FRONT PANEL CONNECTOR Assy	DKP2159
	21	FRONT PANEL CONNECTOR Assy	DKP2160
	22	FRONT PANEL CONNECTOR Assy	DKP2161
	23	SCREW	AMZ30P060FZK
	24	SCREW	IPZ30P060FCU
	25	SCREW	PMH20P100FMC
	26	SPACER	DBA1035
	27	CONTROL PANEL Assy – S	DXX1712
	28	Programed to XC1736 (IC9)	DYW1242
	29	Programed to P85C220 – D (IC11)	DYW1240
	30	Programed to P85C220 – D (IC12)	DYW1241
	31	.....	
	32	Programed to UPC27C1001 (IC14)	DYW1310
	33	RUBBER DIAL	DNV1006
	34	STOPPER (CLUTCH)	DNF1444
	35	.....	
	36	KNOB (VOLUME)	DNK2019
	37	BOLT	SMZ26H060FBT
	38	SCREW	PMB30P060FMC
	39	STOPPER RUBBER	DEB1243
	40	CORD CLAMPER	RNH-184
NSP	101	VOLUME PLATE	DNF1331
NSP	102	LENS	PNY-583
NSP	103	DISPLAY WINDOW	DAH1561
NSP	104	DISPLAY PLATE	DNF1332
NSP	105	CONTROL PANEL Assy	DXA1474
NSP	106	DIAL (CLUTCH)	DLA1448

● Control Panel Assy Side



● Back Panel Assy Side



※1 : Attachment for No. 14 (Rotary encoder)
※2 : These IC are not included in CONTROL UNIT – S.

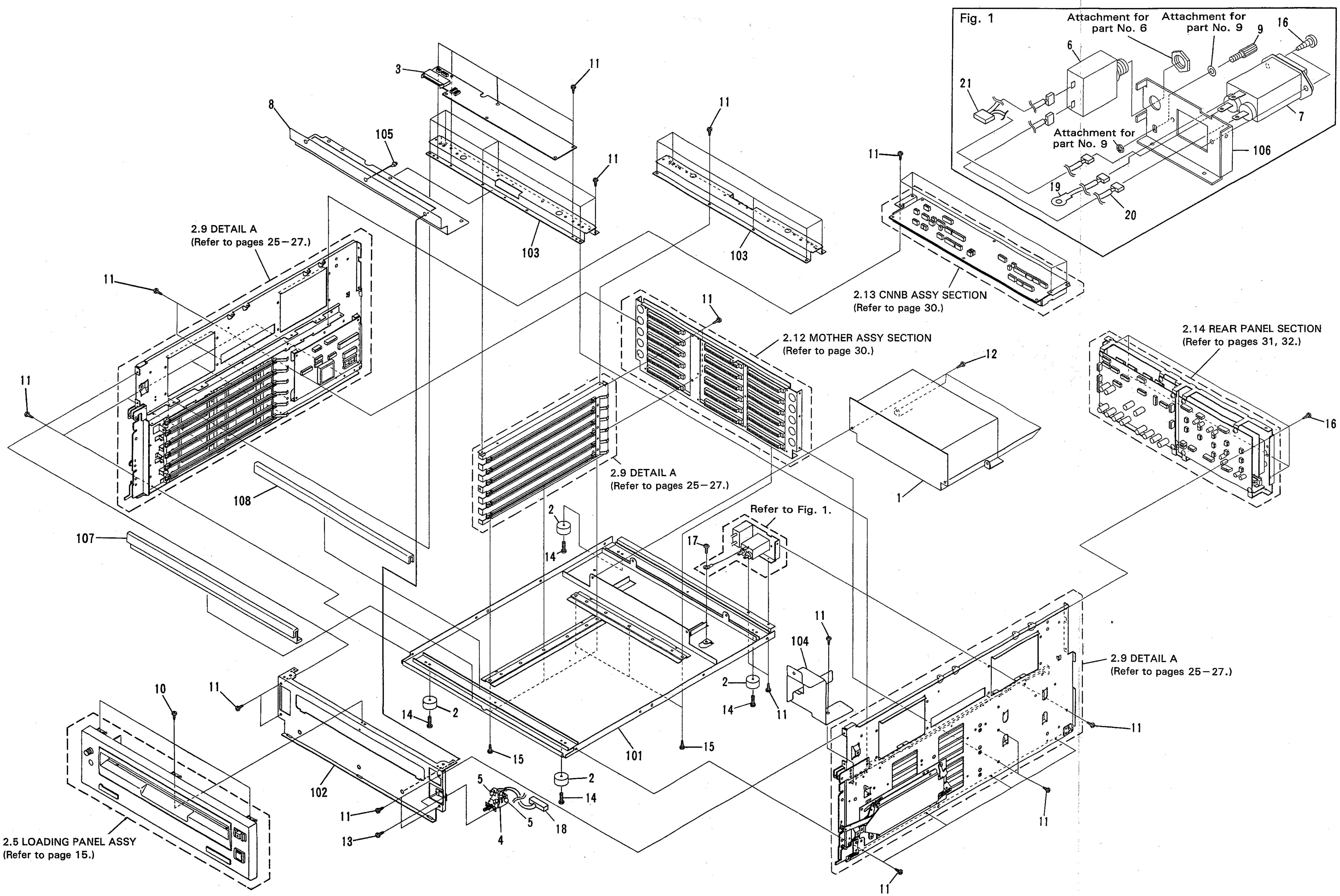
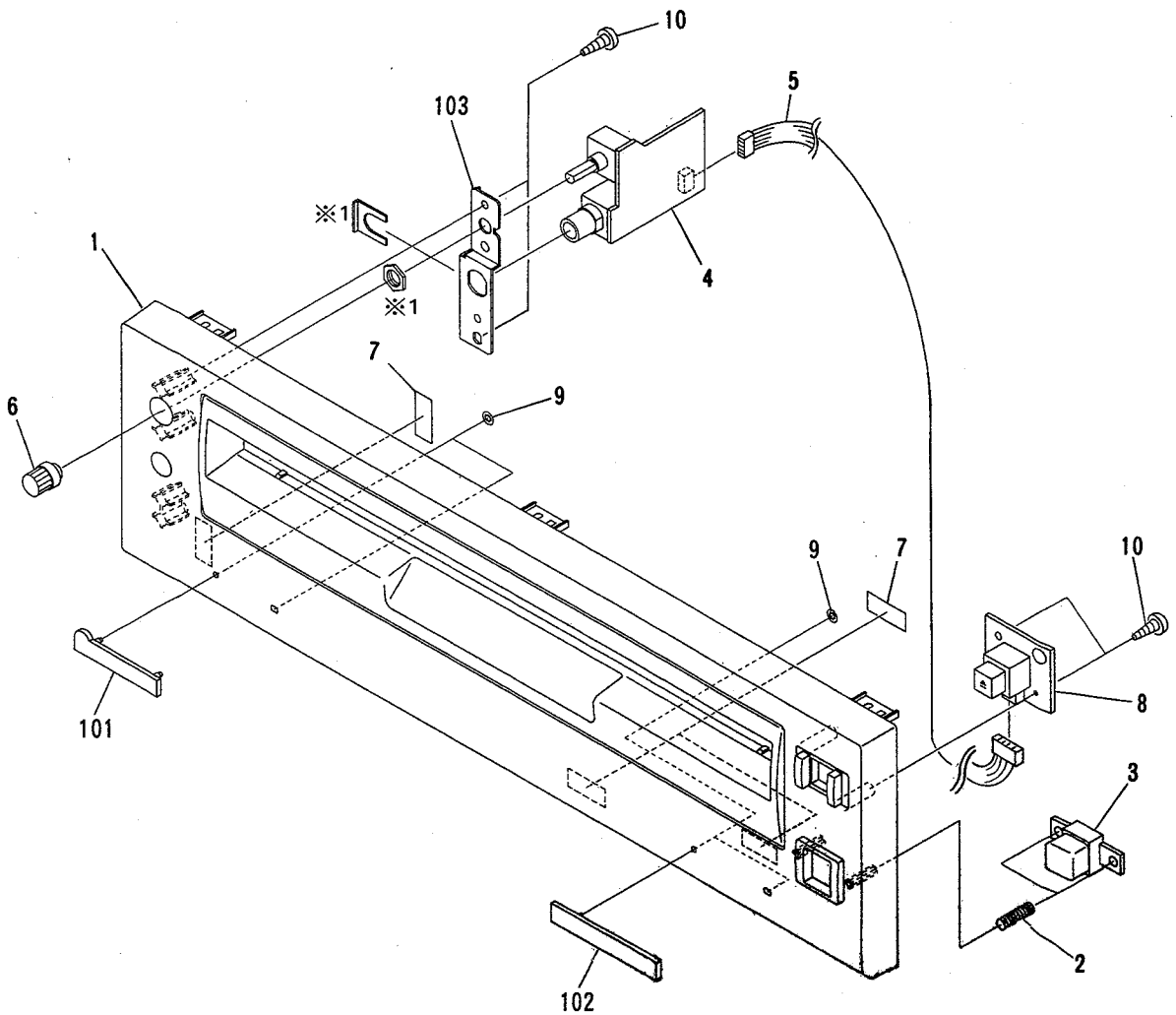


Fig. 1
Attachment for part No. 6
Attachment for part No. 9
Attachment for part No. 9
2.9 DETAIL A (Refer to pages 25−27.)
2.13 CNNB ASSY SECTION (Refer to page 30.)
2.12 MOTHER ASSY SECTION (Refer to page 30.)
2.14 REAR PANEL SECTION (Refer to pages 31, 32.)
2.9 DETAIL A (Refer to pages 25−27.)
Refer to Fig. 1.
2.9 DETAIL A (Refer to pages 25−27.)
2.5 LOADING PANEL ASSY (Refer to page 15.)

2.5 LOADING PANEL ASSY

Parts List of Loading Panel Assy

Mark	No.	Description	Parts No.
	1	LOADING PANEL	DNK2843
	2	SPRING (Power Button)	VBH-150
	3	BUTTON (Power)	DNK2018
	4	HPA Assy	DWK1022
	5	CONNECTOR Assy	DKP2080
	6	ROTARY KNOB B	DAA1005
	7	SHEET	VEX1022
	8	REJ SW Assy	DWX1210
	9	STOPPER RING	YS24FBT
	10	SCREW	IPZ30P060FCU
NSP	101	NAME PLATE	DAM1026
NSP	102	BADGE	DAM1027
NSP	103	HEADPHONE PLATE	DNF1330

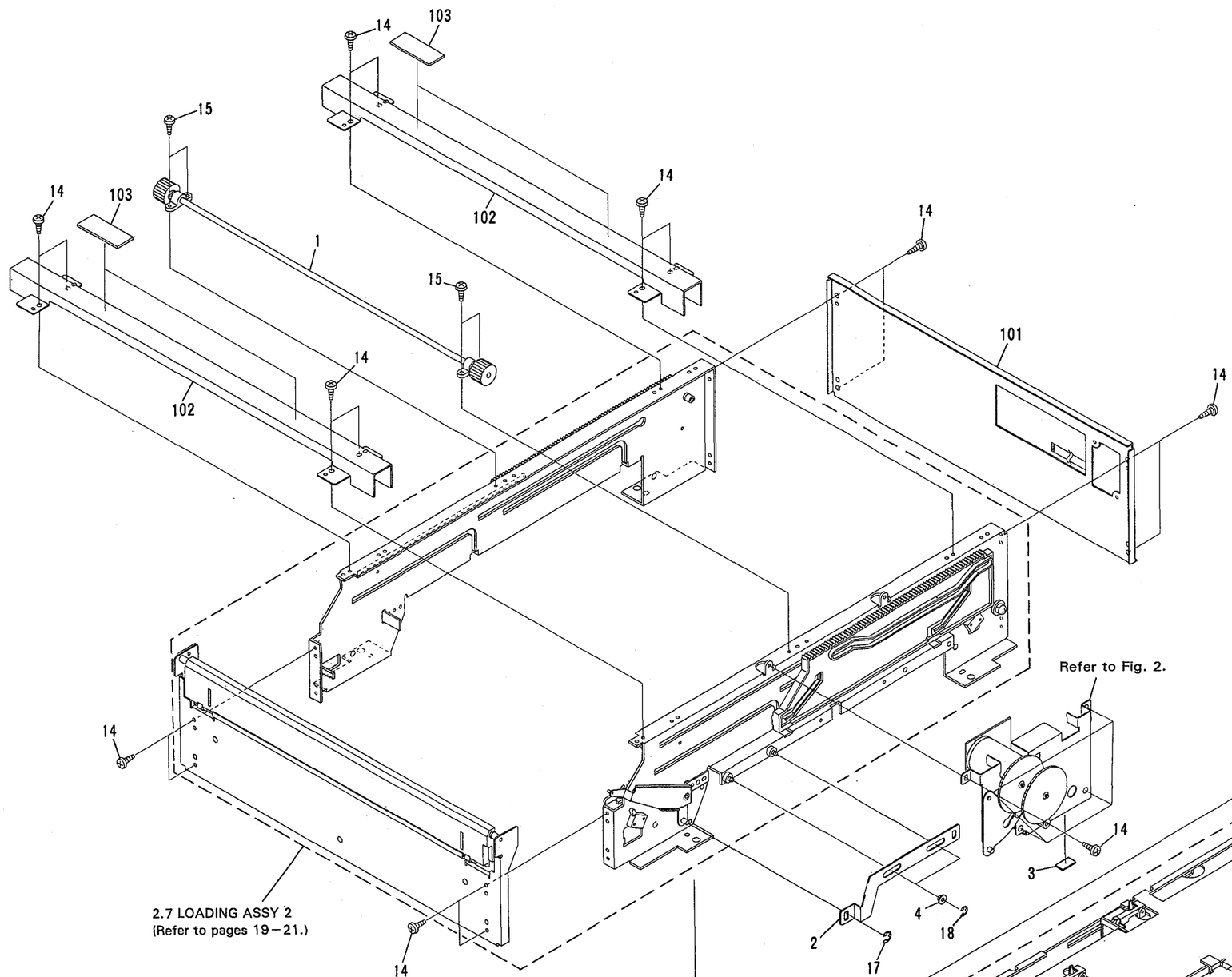


※1 : Attachment for headphone jack located on No. 4 (HPA Assy).

2.6 LOADING ASSY 1

Parts List of Loading Assy 1

Mark	No.	Description	Parts No.
	1	SYNCRO SHAFT Assy	DXB1344
	2	DOOR LINK	DNH1576
	3	SHEET	VEX1022
	4	LINK ROLLER	DLA1495
	5	CONNECTOR Assy	DKP2038
	6	MOTOR	DXM1044
	7	S2M TIMING BELT	DMS1006
	8	GEAR (A)	VNL1020
	9	GEAR (B)	DNK2036
	10	GEAR (C)	DNK2037
	11	CAM LEVER Assy	DXB1348
	12	GEAR Assy-S	DXX1709
	13	PULLEY	DNK1620
	14	SCREW	BBZ30P060FMC
	15	SCREW	IBZ30P080FCC
	16	SCREW	PMB30P060FMC
	17	E RING	YE25FUC
	18	E RING	YE20FUC
	19	WASHER	WA32D060D050
	20	WASHER	WT26D060D050
	21	MCNB Assy	DWX1218
NSP	101	REAR PLATE	DND1099
NSP	102	TOP FRAME	DND1100
NSP	103	CUSHION	VEC1004
NSP	104	GEAR (A) SHAFT	DLA1492
NSP	105	M HOLDER Assy	DXB1331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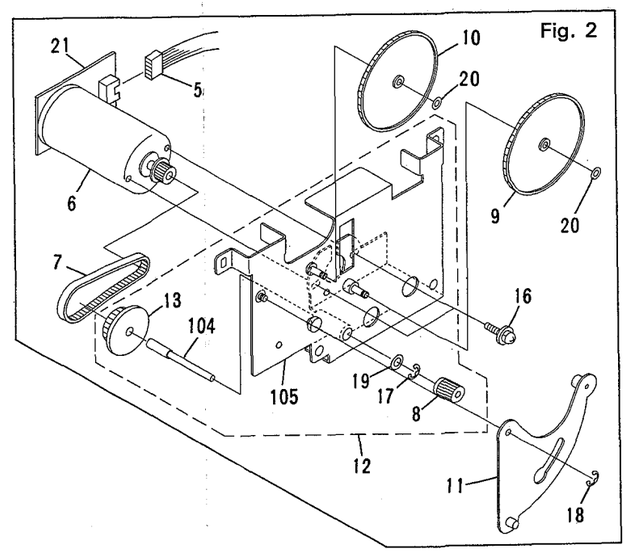
2.7 LOADING ASSY 2
(Refer to pages 19–21.)
Refer to Fig. 2.
2.8 LOADING ASSY 3
(Refer to pages 22–24.)

Fig. 2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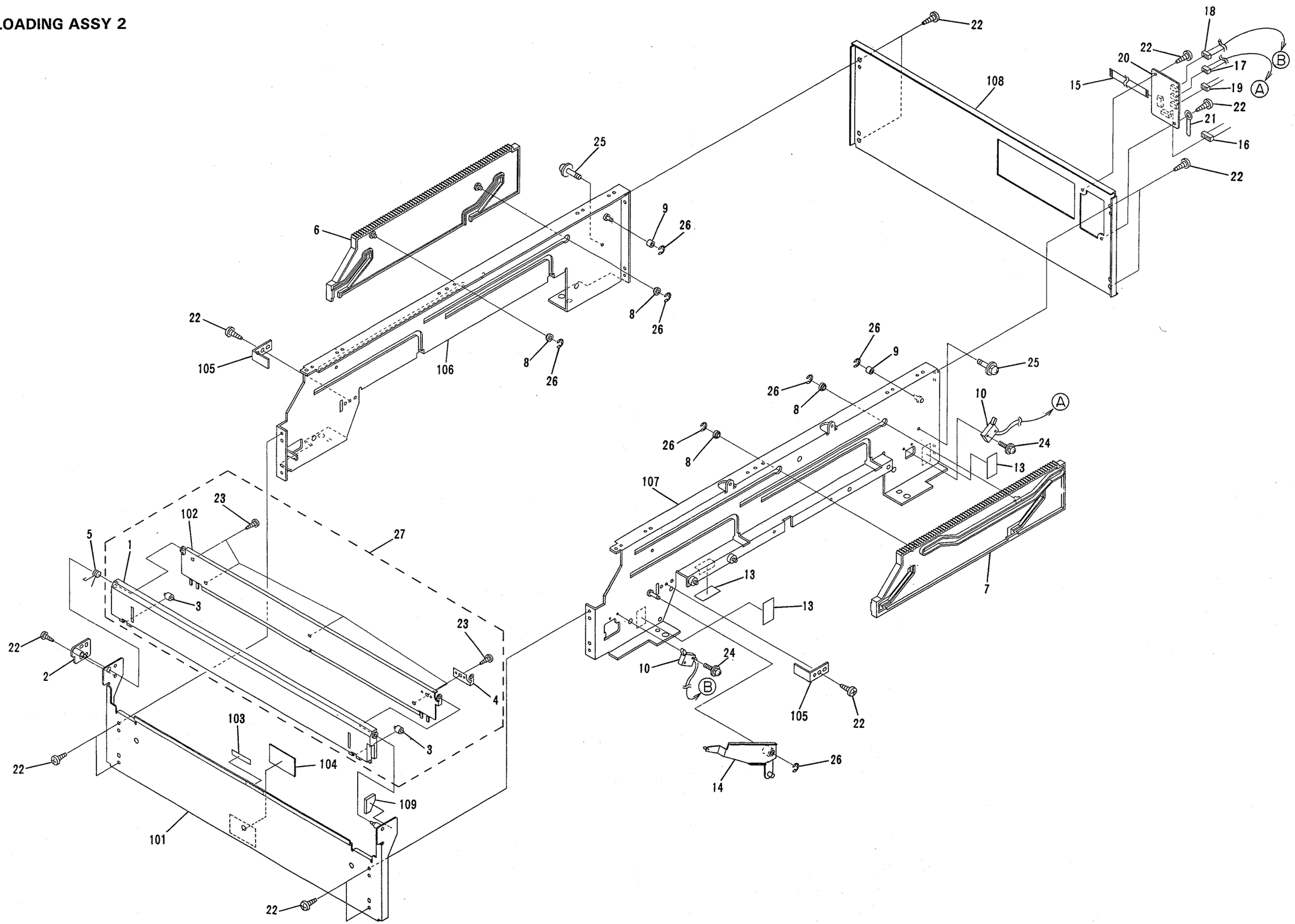
2.7 LOADING ASSY 2



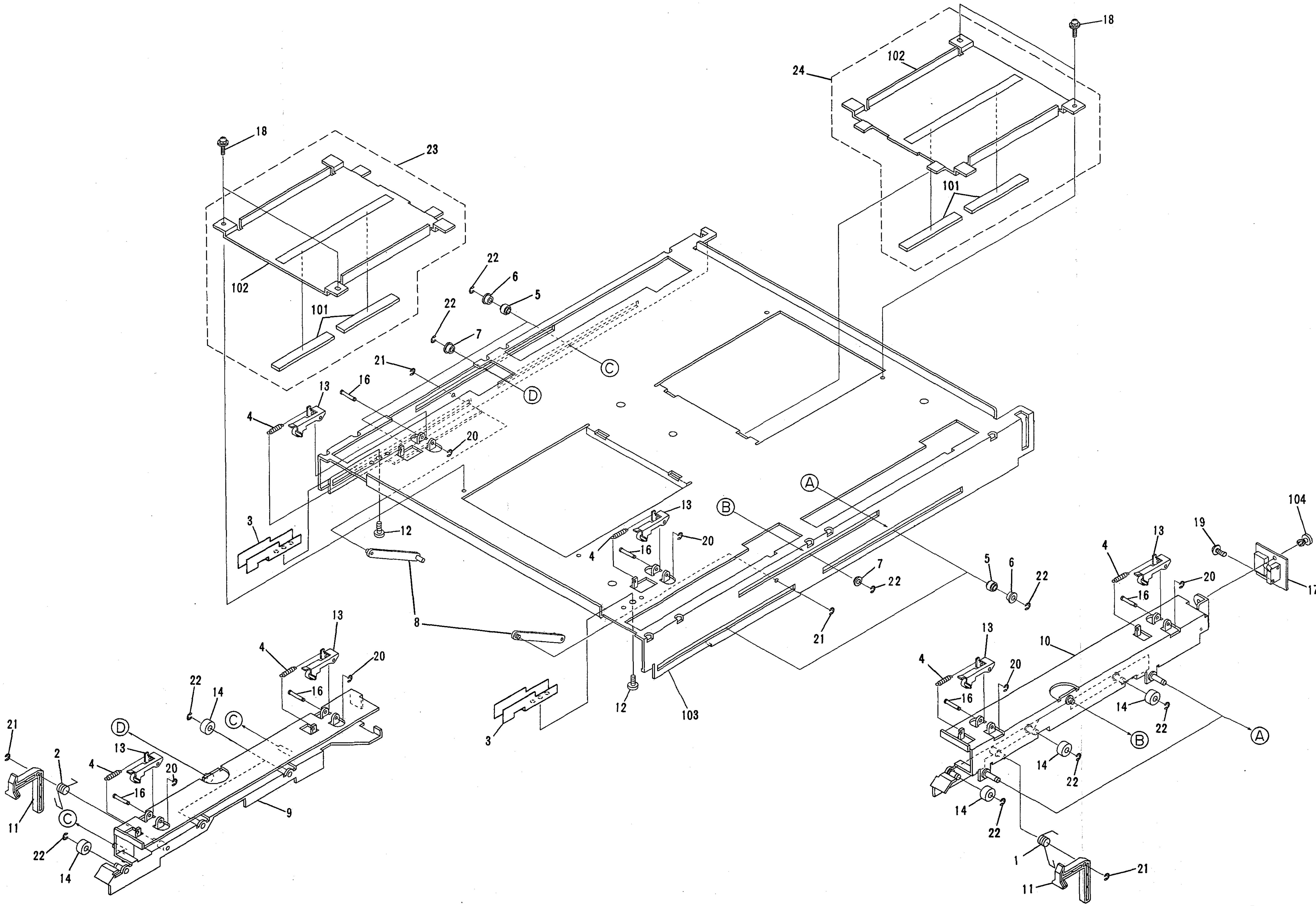
Parts List of Loading Assy 2

Mark	No.	Description	Parts No.
	1	DOOR	DNK2038
	2	DOOR FULCRUM BOARD Assy	DXB1321
	3	ROLLER	VNL1042
	4	DOOR EARTH PLATE	DBK1062
	5	DOOR SPRING	DBH1163
	6	RACK (L)	DNK2044
	7	RACK (R)	DNK2043
	8	ROLLER (C)	DLA1491
	9	ROLLER (E)	DLA1494
	10	LEVER SWITCH (S102, S103)	RSK1002
	11	.....	
	12	.....	
	13	SHEET	VEX1022
	14	DOOR ARM Assy	DXB1329
⚠	15	FLEXIBLE CORD (08P)	DDD1059
	16	CONNECTOR Assy	DKP2035
	17	CONNECTOR Assy	DKP2036
	18	CONNECTOR Assy	DKP2037
	19	CONNECTOR Assy	DKP2038
	20	SCNB Assy	DWX1216
	21	BINDER	VNF-069
	22	SCREW	BBZ30P060FMC
	23	SCREW	BPZ20P040FMC
	24	SCREW	PMH20P100FMC
	25	SCREW (B)	PBA1014
	26	E RING	YE25FUC
	27	DOOR Assy-S	DXX1767
NSP	101	DOOR HOLDER Assy	DXB1325
NSP	102	DOOR REINFORCEMENT BOARD	DNH1559
NSP	103	CUSHION RUBBER	DEB1173
NSP	104	SPACER RUBBER	DEB1171
NSP	105	RELEASE PLATE	DNH1561
NSP	106	RACK PLATE (L) Assy	DXB1324
NSP	107	RACK PLATE (R) Assy	DXB1323
NSP	108	REAR PLATE	DND1099
NSP	109	ARM STOPPER	DEB1188

2.8 LOADING ASSY 3

Parts List of Loading Assy 3

Mark	No.	Description	Parts No.
	1	LOCK SPRING R	DBH1160
	2	LOCK SPRING L	DBH1161
	3	DOOR STOPPER	DNH1622
	4	HOLD SPRING	DBH1164
	5	ROLLER (A)	DLA1489
	6	ROLLER (B)	DLA1490
	7	ROLLER (C)	DLA1491
	8	S PLATE Assy	DXB1330
	9	CASE HOLDER (L) Assy	DXB1327
	10	CASE HOLDER (R) Assy	DXB1326
	11	LOCK	DNK2041
	12	SCREW	BBZ30P060FMC
	13	CASE HOLDER Assy	DXB1328
	14	GUIDE ROLLER B	DNK1017
	15	.....	
	16	SHAFT	DLA1493
	17	CASW Assy	DWX1219
	18	SCREW	PMB30P060FMC
	19	SCREW	PMH20P100FMC
	20	E RING	YE15FUC
	21	E RING	YE20FUC
	22	E RING	YE25FUC
	23	MAGNET Assy (F)-S	DXX1710
	24	MAGNET Assy (R)-S	DXX1711
NSP	101	C MAGNET/35H	OMF1007
NSP	102	YOKE PLATE	DNH1558
NSP	103	MAGNET HOLDER	DNH1552
NSP	104	NYLON RIVET	DEC-117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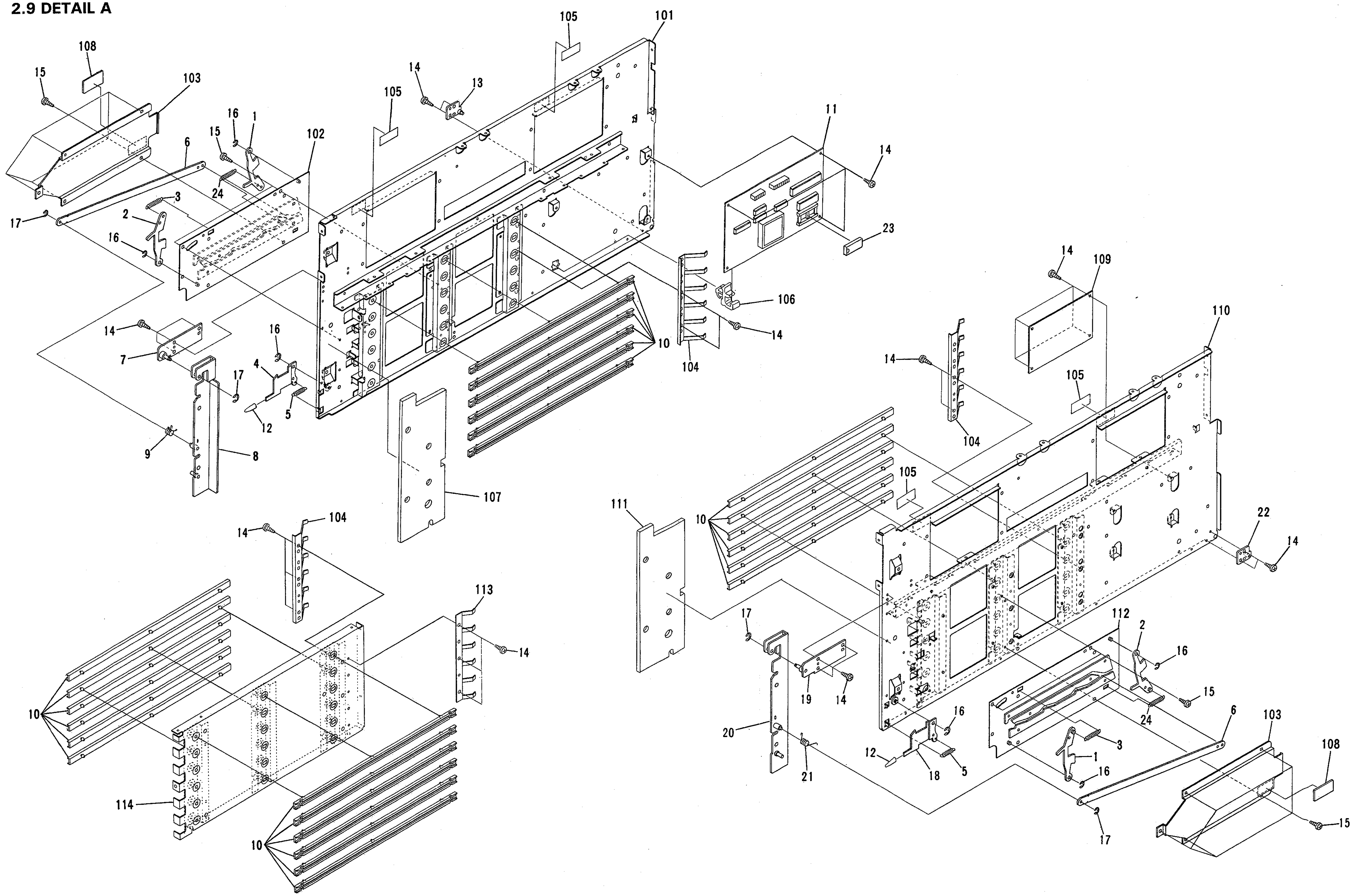
2.9 DETAIL A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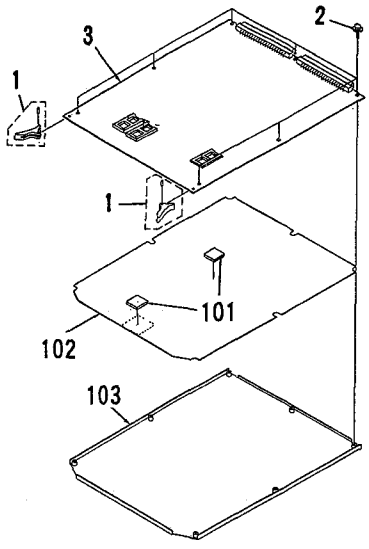
Parts List of Detail A

Mark	No.	Description	Parts No.
	1	RATCHET LEVER (R) Assy	DXB1349
	2	RATCHET LEVER (L) Assy	DXB1350
	3	RATCHET SPRING A	DBH1173
	4	EJECT LEVER L	DNH1572
	5	EJECT LEVER SPRING	DBH1175
	6	SPRING UP STAY Assy	DXA1515
	7	STAY HOLDER (L) Assy	DXB1340
	8	PANEL HOLDER (L) Assy	DXA1305
	9	STAY SPRING L	DBH1177
	10	GUIDE RAIL	DEC1393
	11	422IF Assy	DWG1230
	12	LEVER CAP	DEB1177
	13	FULCRUM BOARD (L) Assy	DXB1319
	14	SCREW	BBZ30P060FMC
	15	SCREW	BBZ30P050FZK
	16	E RING	YE30FUC
	17	E RING	YE20FUC
	18	EJECT LEVER R	DNH1571
	19	STAY HOLDER (R) Assy	DXB1339
	20	PANEL HOLDER (R) Assy	DXA1304
	21	STAY SPRING R	DBH1176
	22	FULCRUM BOARD (R) Assy	DXB1318
	23	Programed to 27C256AK-12 (IC103)	DYW1309
	24	RATCHET SPRING B	DBH1202

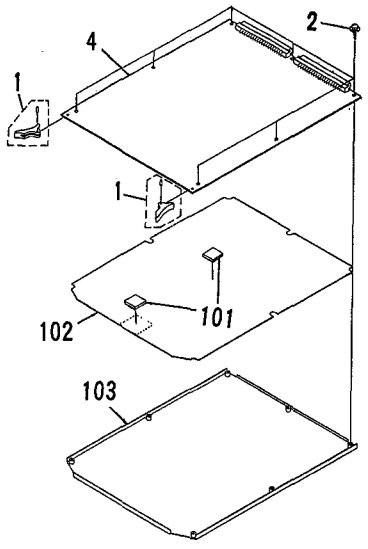
Mark	No.	Description	Parts No.
NSP	101	SIDE FRAME (L) Assy	DXB1312
NSP	102	CAM BASE (L) Assy	DXB1484
NSP	103	STAY COVER	DNH1584
NSP	104	EARTH PLATE A	DBK1059
NSP	105	SPACER	DEC1440
NSP	106	PCB HOLDER	DEC1442
NSP	107	SIDE COVER L	DEB1183
NSP	108	STAY COVER SPACER	DEB1186
NSP	109	ACCN Assy	DWX1252
NSP	110	SIDE FRAME (R) Assy	DXB1311
NSP	111	SIDE COVER R	DEB1182
NSP	112	CAM BASE (R) Assy	DXB1483
NSP	113	EARTH PLATE B	DBK1060
NSP	114	CENTER BOARD Assy	DXB1313

2.10 P. C. BOARD 1

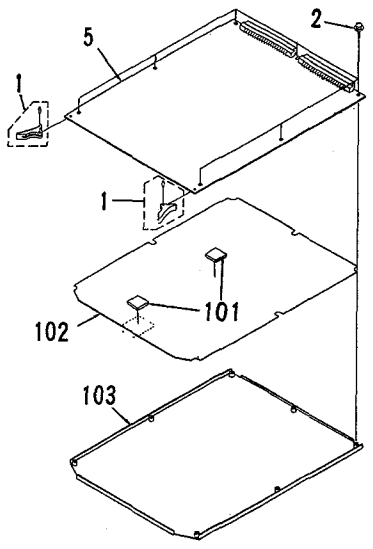
● MPU UNIT – S



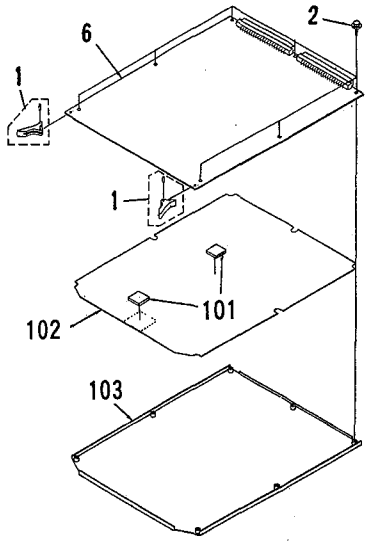
● ADEM UNIT – S



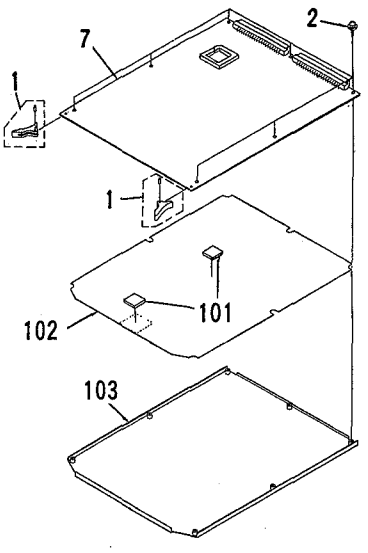
● AMOD UNIT – S



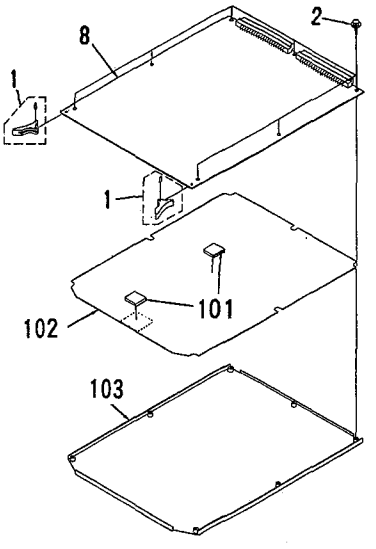
● VAPB UNIT – S



● VDEC UNIT – S



● VENC UNIT – S

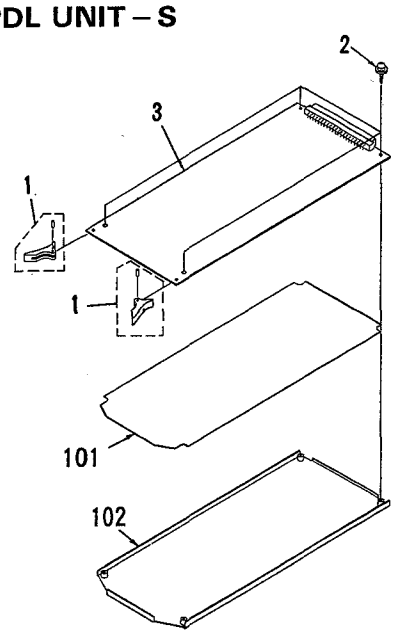


Parts List of P. C. Board 1

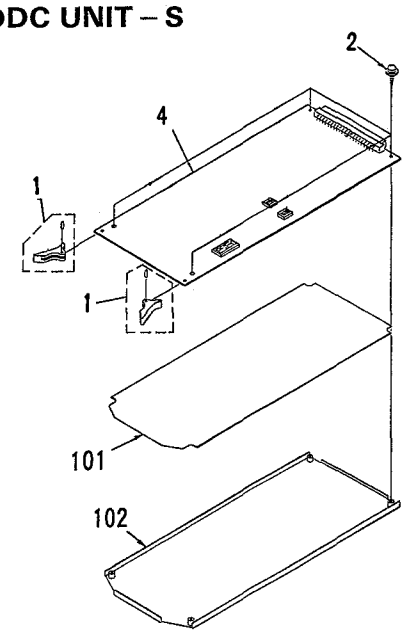
Mark	No.	Description	Parts No.
	1	EJECTOR	DEC1399
	2	SCREW	PMH30P080FMC
	3	MPU Assy	DWG1344
	4	ADEM Assy	DWK1038
	5	AMOD Assy	DWK1039
	6	VAPB Assy	DWV1126
	7	VDEC Assy	DWV1133
	8	VENC Assy	DWV1084
NSP	101	PCB SPACER	DEB1174
NSP	102	INSULATION SHEET A	DEC1383
NSP	103	PCB HOLDER (A) Assy	DXB1320

2.11 P. C. BOARD 2

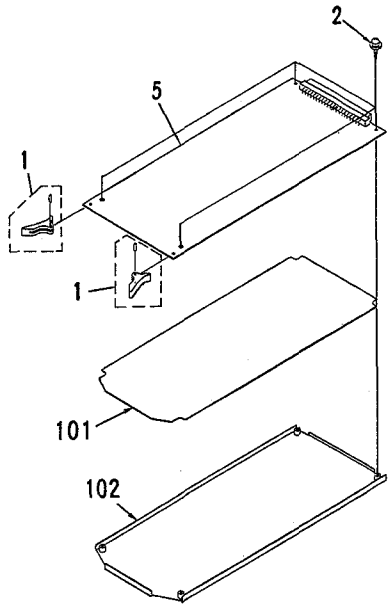
● SPDL UNIT – S



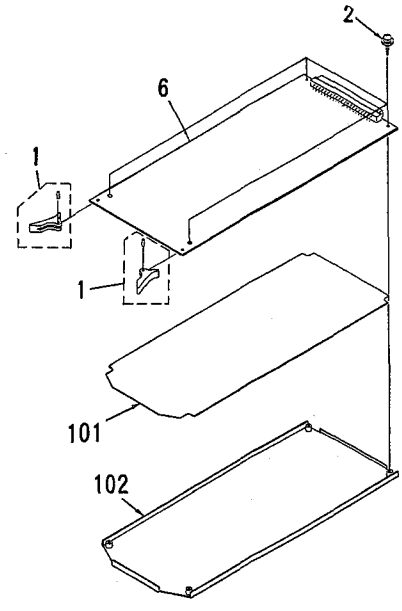
● ADDC UNIT – S



● VAR1 UNIT – S



● VAR2 UNIT – S



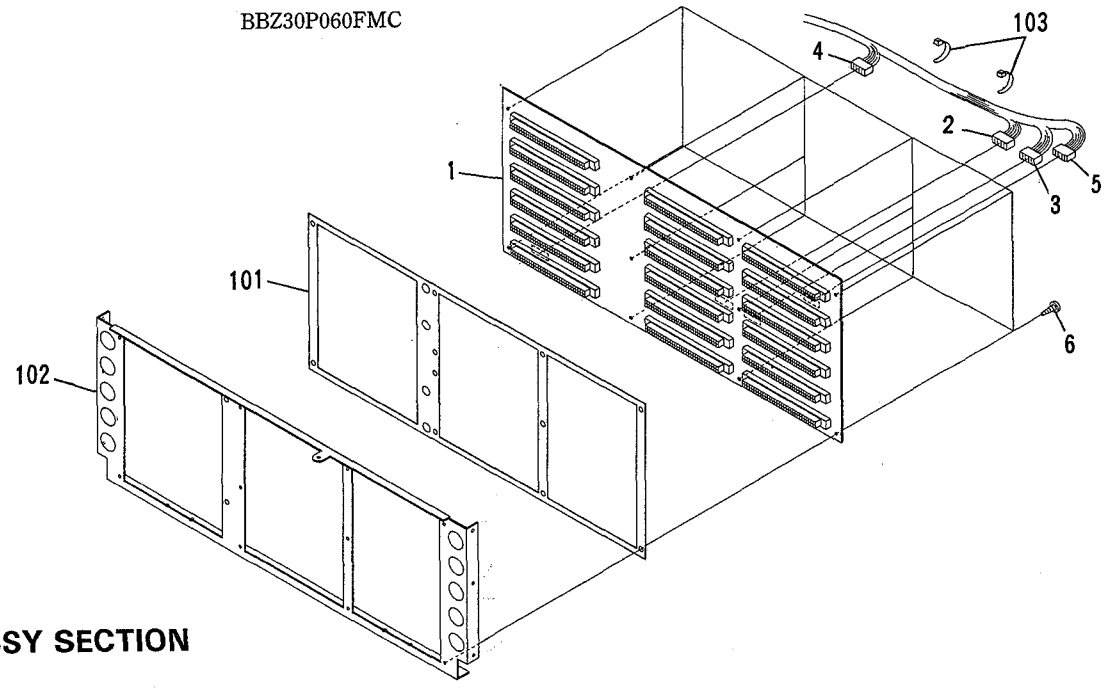
Parts List of P. C. Board 2

Mark	No.	Description	Parts No.
	1	EJECTOR	DEC1399
	2	SCREW	PMH30P080FMC
	3	SPDL Assy	DWS1190
	4	ADDC Assy	DWP1042
	5	VAR1 Assy	DWV1127
	6	VAR2 Assy	DWV1128
NSP	101	INSULATION SHEET B	DEC1384
NSP	102	PCB HOLDER (B) Assy	DXB1322

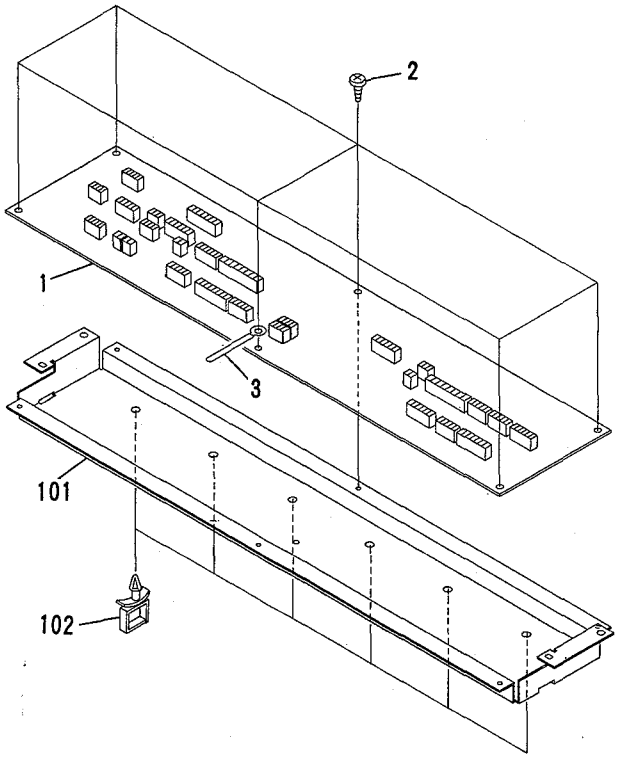
2.12 MOTHER ASSY SECTION

Parts List of Mother Assy Section

Mark	No.	Description	Parts No.
	1	MOTHER Assy	DWX1213
	2	CONECTOR Assy	DKP2051
	3	CONECTOR Assy	DKP2052
	4	CONECTOR Assy	DKP2066
	5	CONECTOR Assy	DKP2071
	6	SCREW	BBZ30P060FMC
NSP	101	MOTHER INSULATION SHEET	DEC1382
NSP	102	MOTHER INSTALL BOARD A	DNF1342
NSP	103	BINDER	PEC-107



2.13 CNNB ASSY SECTION



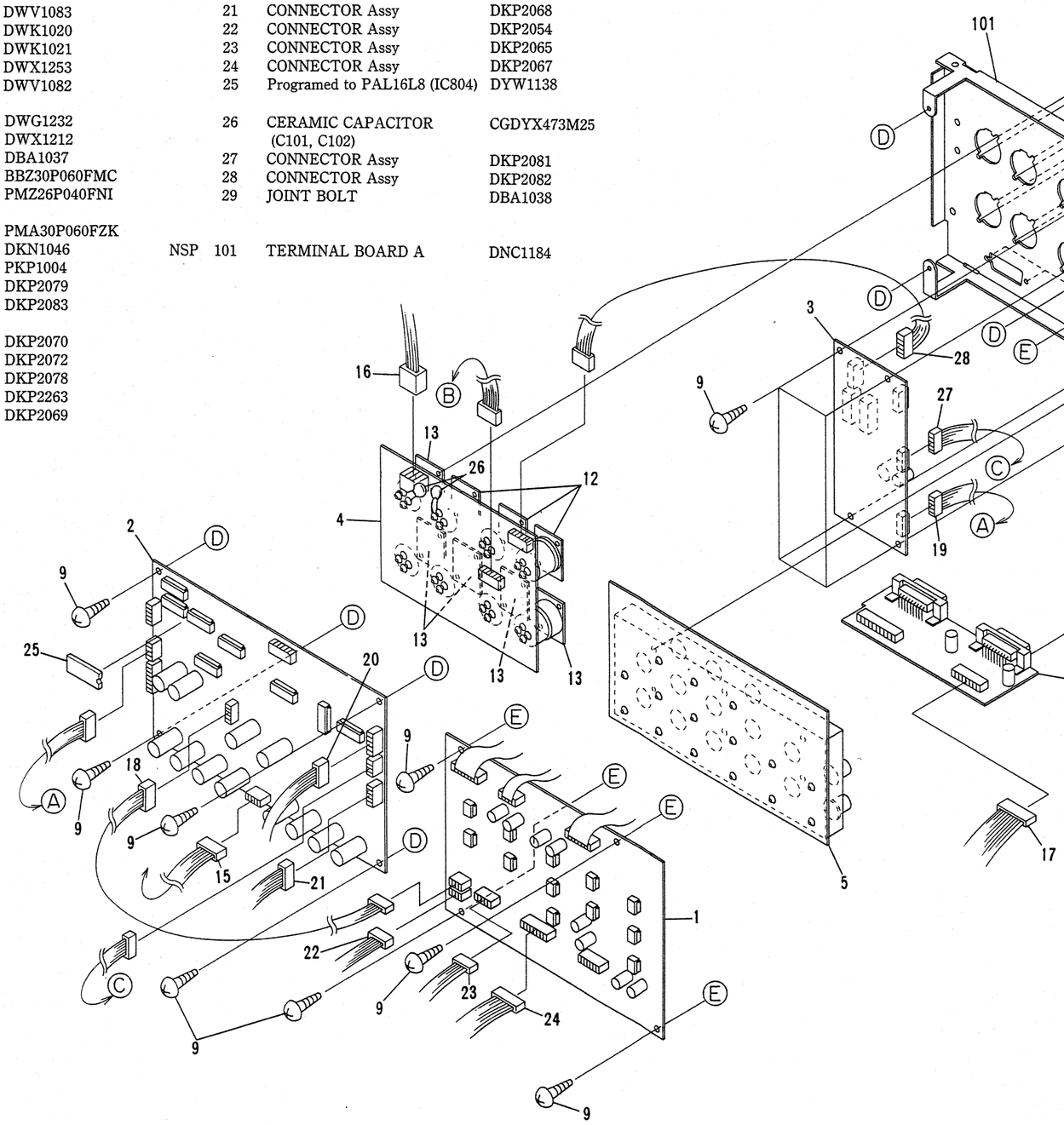
Parts List of CNNB Assy Section

Mark	No.	Description	Parts No.
	1	CNNB Assy	DWX1214
	2	SCREW	BBZ30P060FMC
	3	CORD STOPPER	VNF-069
NSP	101	MOTHER INSTALL BOARD B	DNF1344
NSP	102	WIRE SADDLE	DEC1450

2.14 REAR PANEL SECTION

Parts List of Rear Panel Section

Mark	No.	Description	Parts No.
	1	VDIF Assy	DWV1083
	2	AUIF1 Assy	DWK1020
	3	AUIF2 Assy	DWK1021
◉	4	AUCN Assy	DWX1253
	5	VDCN Assy	DWV1082
	6	TBCIF Assy	DWG1232
	7	422CN Assy	DWX1212
	8	JOINT BOLT	DBA1037
	9	SCREW	BBZ30P060FMC
	10	SCREW	PMZ26P040FNI
	11	SCREW	PMA30P060FZK
	12	CANON CONNECTOR	DKN1046
	13	3P RECEPTACLE	PKP1004
	14	CONNECTOR Assy	DKP2079
	15	CONNECTOR Assy	DKP2083
	16	CONNECTOR Assy	DKP2070
	17	CONNECTOR Assy	DKP2072
	18	CONNECTOR Assy	DKP2078
	19	CONNECTOR Assy	DKP2263
	20	CONNECTOR Assy	DKP2069
	21	CONNECTOR Assy	DKP2068
	22	CONNECTOR Assy	DKP2054
	23	CONNECTOR Assy	DKP2065
	24	CONNECTOR Assy	DKP2067
	25	Programed to PAL16L8 (IC804)	DYW1138
	26	CERAMIC CAPACITOR (C101, C102)	CGDYX473M25
	27	CONNECTOR Assy	DKP2081
	28	CONNECTOR Assy	DKP2082
	29	JOINT BOLT	DBA1038
NSP	101	TERMINAL BOARD A	DNC1184



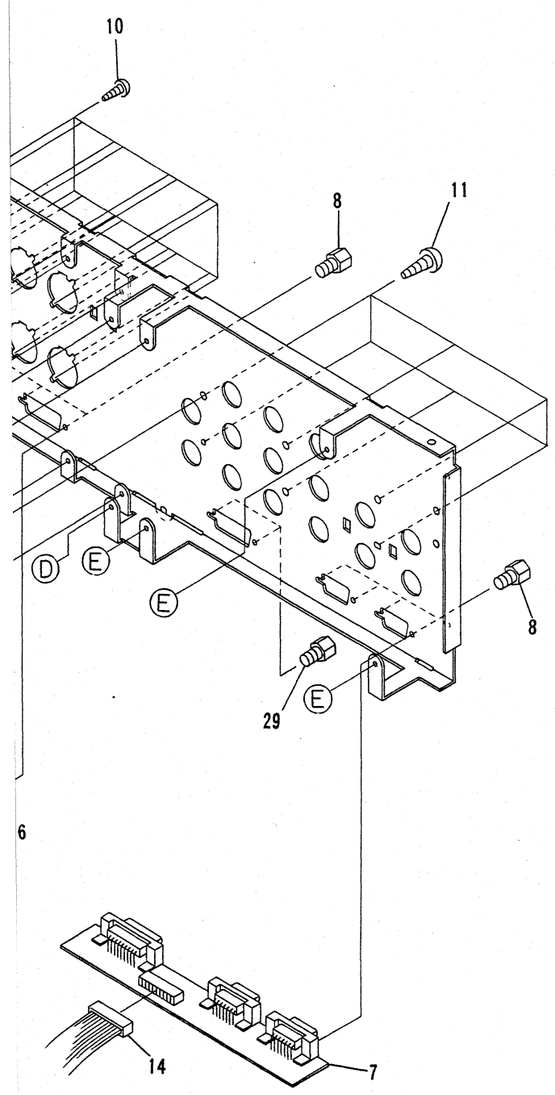
3. PACKING AND PARTS LIST

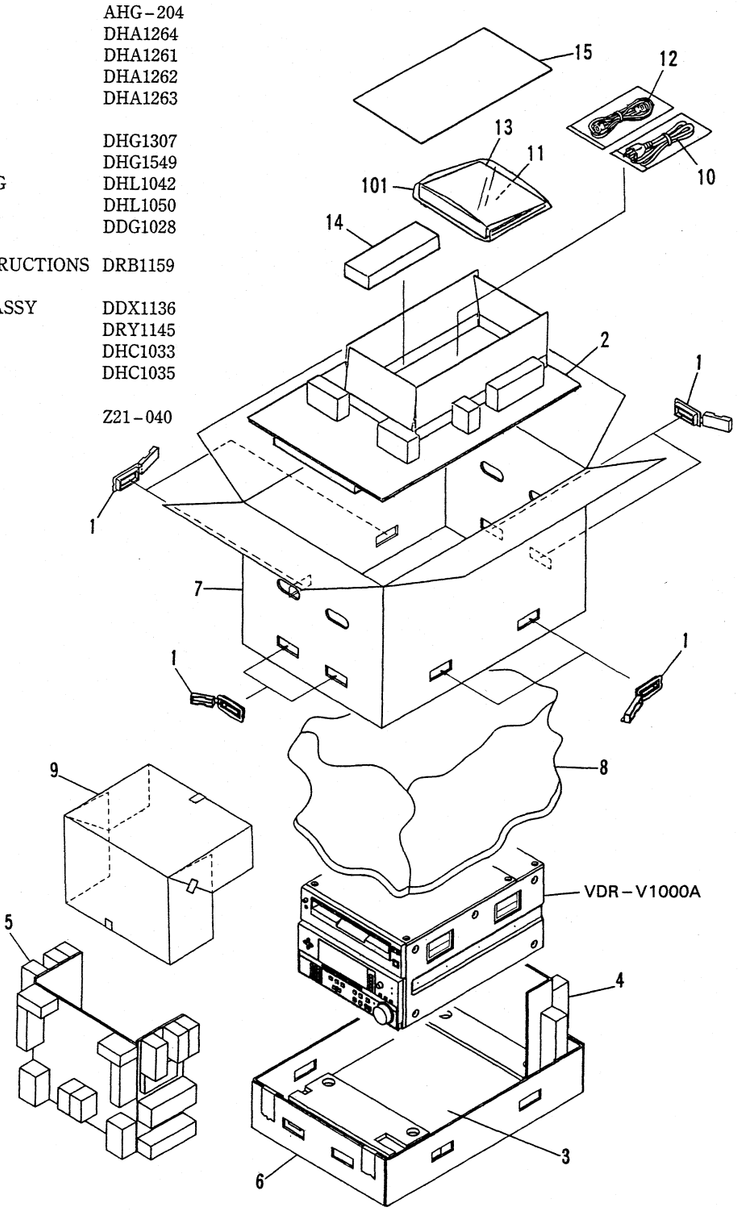
NOTES :

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Parts List of Packing

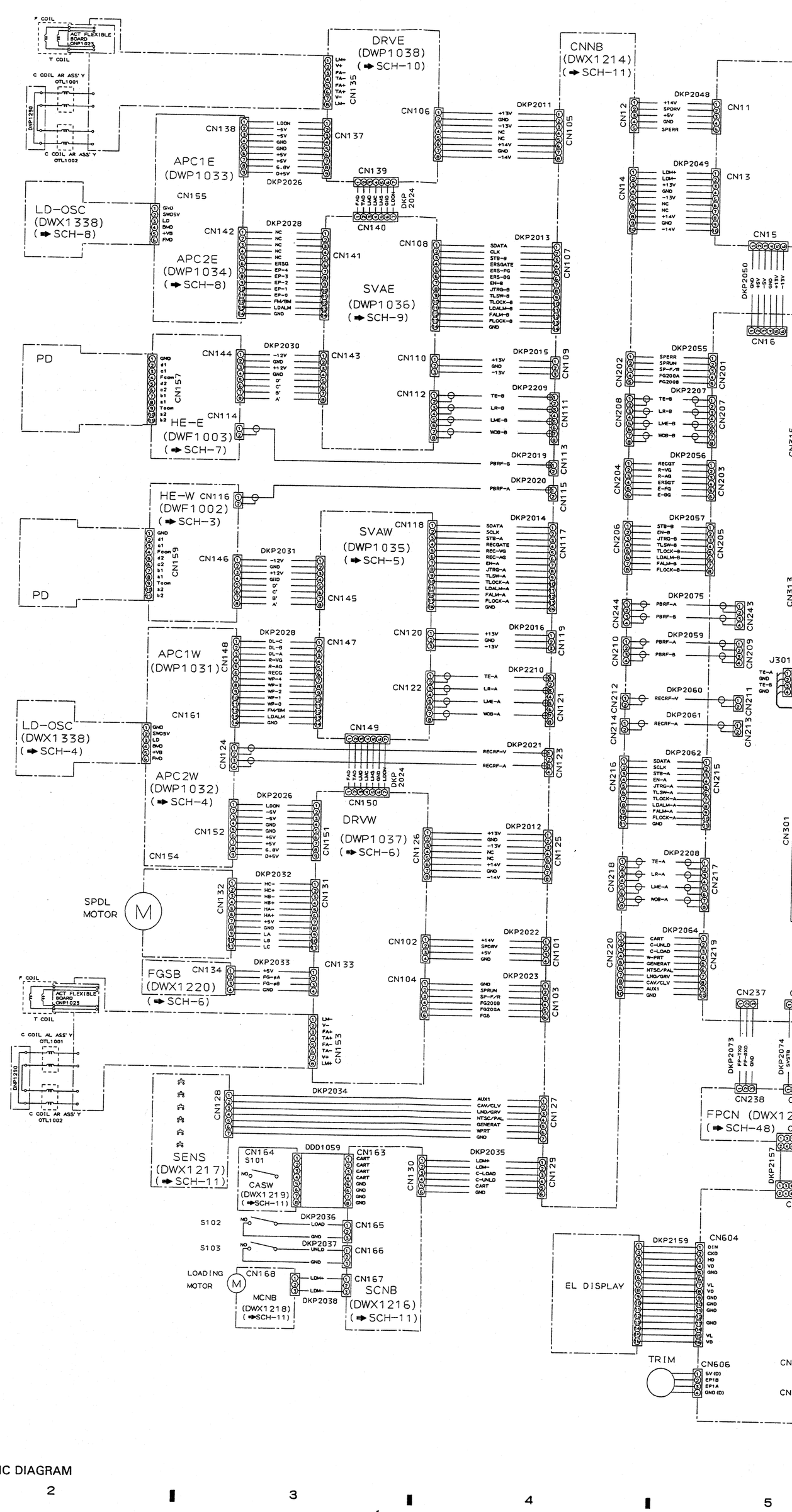
Mark	No.	Description	Parts No.
	1	PP JOINT	AHG-204
	2	UPPER PAD A	DHA1264
	3	LOWER PAD	DHA1261
	4	REAR PAD	DHA1262
	5	FRONT PAD	DHA1263
	6	BOTTOM CASE	DHG1307
	7	UPPER CASE	DHG1549
	8	MIRROR MAT BAG	DHL1042
	9	MIRROR MAT	DHL1050
	10	POWER CORD	DDG1028
	11	OPERATING INSTRUCTIONS (English)	DRB1159
	12	REMOTE CABLE ASSY	DDX1136
	13	BINDER	DRY1145
	14	SPACER	DHC1033
	15	UPPER BOARD	DHC1035
NSP	101	VINYL BAG (A3)	Z21-040



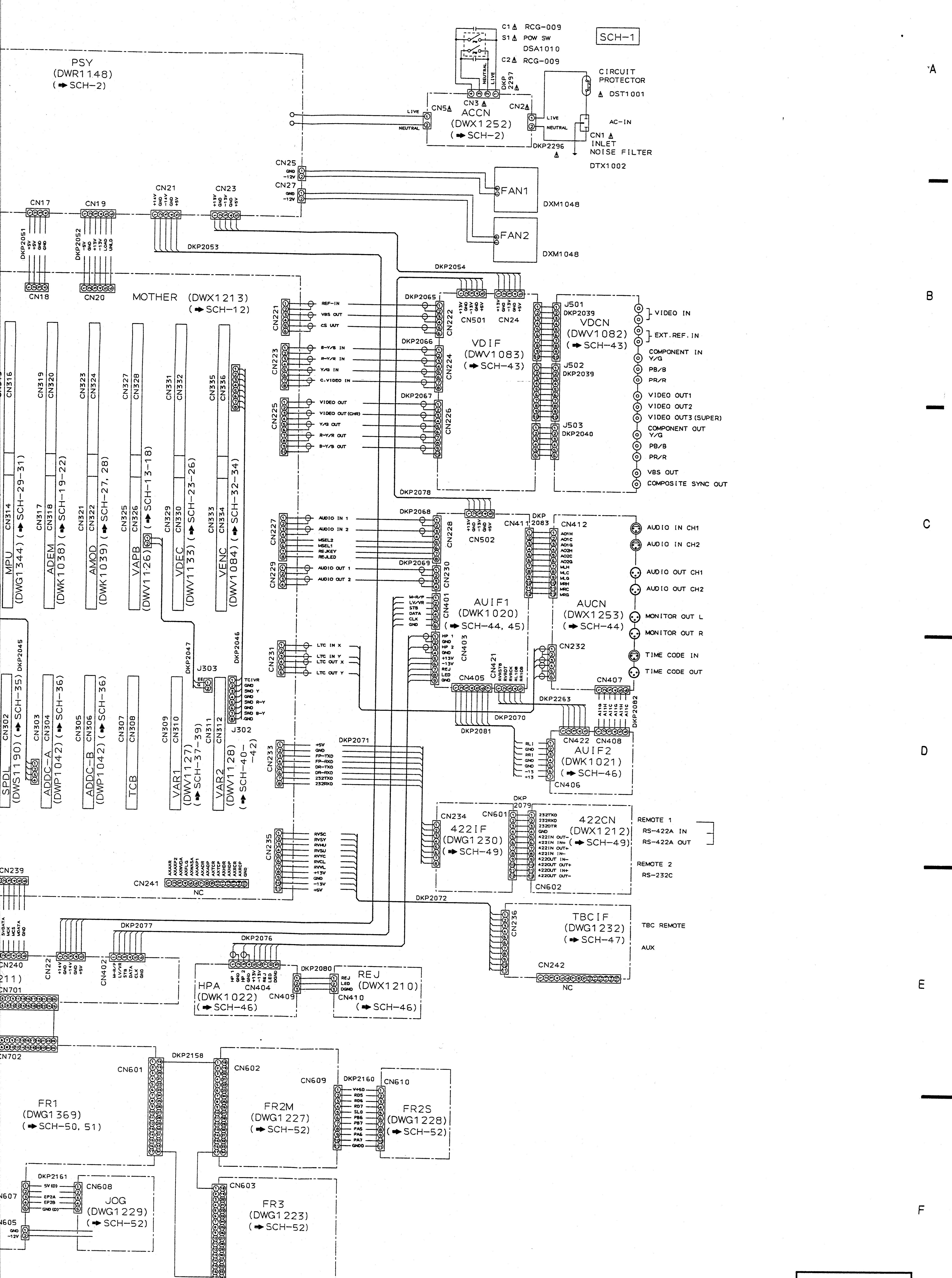


4. SCHEMATIC AND PCB CONNECTION DIAGRAMS

4.1 OVERALL SCHEMATIC DIAGRAM



SCH-1 OVERALL SCHEMATIC DIAGRAM



SCH-1

OVERALL SCHEMATIC DIAGRAM

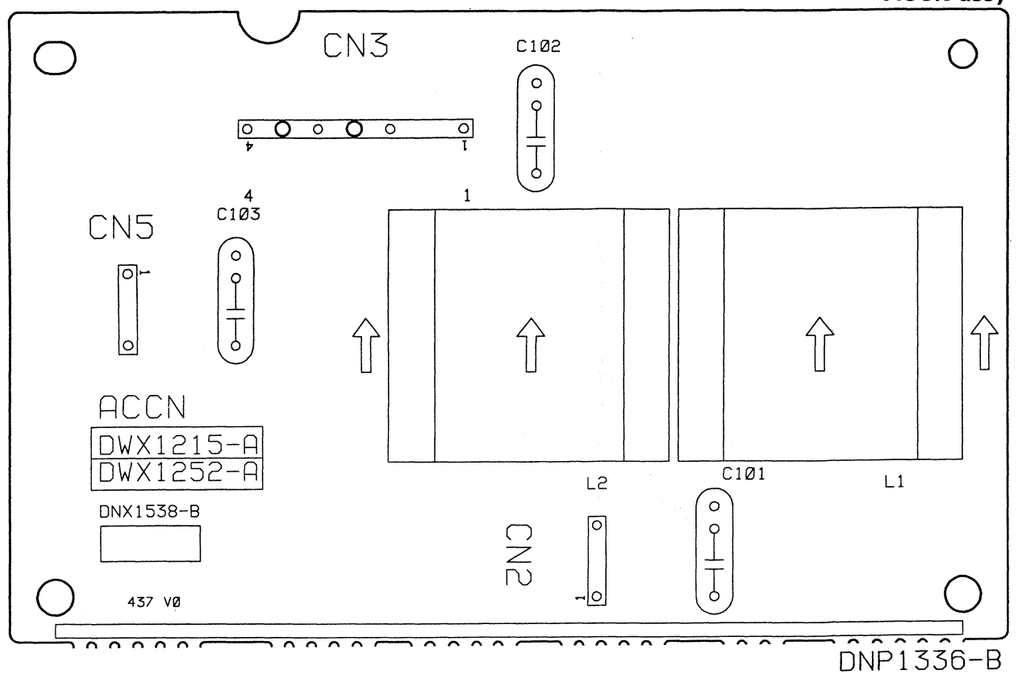
4.2 ACCN ASSY AND PSY ASSY

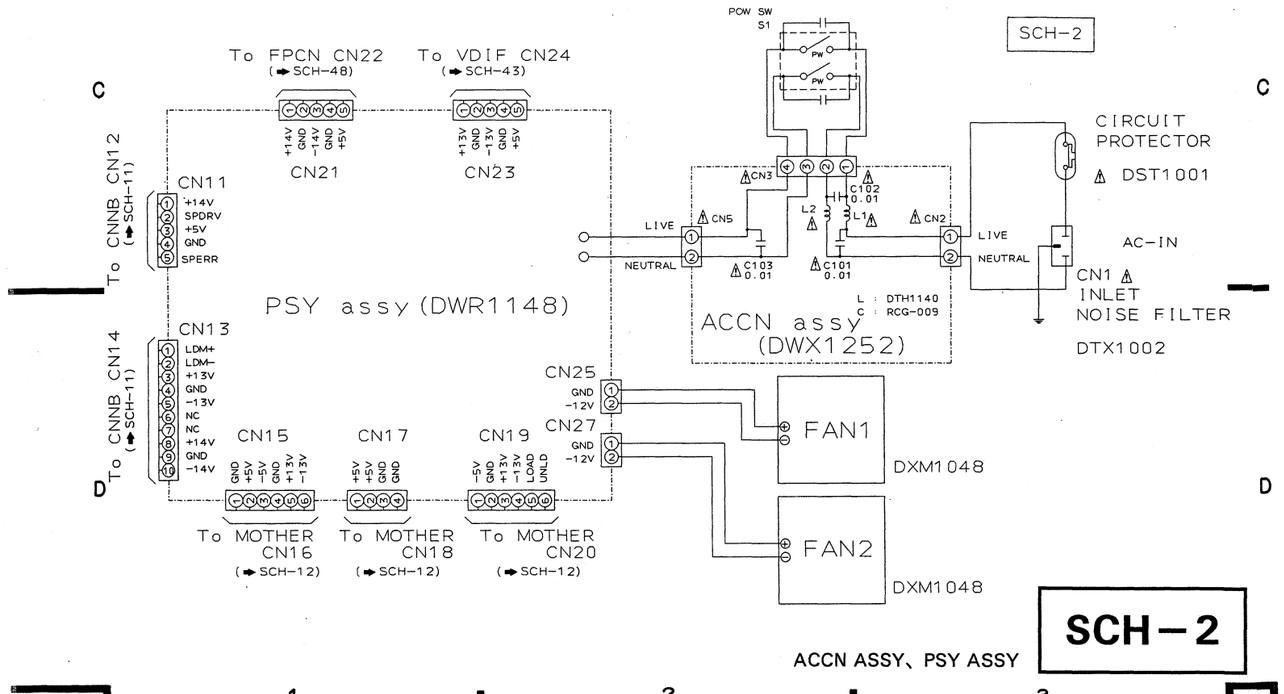
NOTE FOR SCHEMATIC DIAGRAMS (Type 2A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   ▭ or ← V :
   DC voltage (V) at no input signal unless otherwise noted.
   ⇦ mA or ← mA :
   DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ◐ : Adjusting point.
   - : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH－□ ON THE SCHEMATIC DIAGRAM:**
   - SCH－□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

S1	POWER SW ON -OFF	FR3 Assy	
S102	LOAD	S17	SET
S103	UNLOAD	S18	CLR
VDCN Assy		S19	0
S101	VIDEO 75Ω ON -OFF	S20	1
S102	EXT REF. 75Ω ON -OFF	S21	2
VAPB Assy		S22	3
S501	SMPTE/B -CAM A -B	S23	4
S502	SMPTE/B -CAM A -B	S24	5
S503	SMPTE/B -CAM A -B	S25	6
VAR2 Assy		S26	7
SW101	A/B	S27	8
SW102	A/B	S28	9
SW103	A/B	S29	F1
VDEC Assy		S30	F2
S1 -1	DS0 O/C	S31	F3
S1 -2	DS1 O/C	S32	F4
S1 -3	DS2 O/C	S33	F5
S1 -4	DS3 O/C	S34	F6
S1 -5	DS4 O/C	S35	F7
S1 -6	DS5 O/C	S36	F8
S1 -7	DS6 O/C	S37	F9
S1 -8	DS7 O/C	S38	F10
REJ SW Assy		S39	M1
S1	EJECT	S40	M2
FR1 Assy		S41	M3
S1	RESET	S42	M4
ADEM Assy		S43	M5
SW1	NRM/SWP	S44	CURSOR ∧
SW2	NRM/SWP	S45	CURSOR ∨
AUIF2 Assy		S46	CURSOR <
S10	LEVEL 600Ω ON -OFF	S47	CURSOR >
S11	LEVEL 600Ω HIGH (+4dB) -LOW (-20dB)	S48	CURSOR
FR2M Assy		FR2S Assy	
S1	ENTRY IN	S6	SHUTTLE
S2	ENTRY OUT	S7	JOG
S3	PARK	S8	SCAN
S4	REC STANDBY	SENS Assy	
S5	REC EDIT	S104	WPRT
S9	EXECUTE	S105	1st GEN.
S10	PREROLL	S106	NTSC/PAL
S11	SEARCH	S107	GRV/LND
S12	STOP	S108	CAV/CLV
S13	VAR	S109	AUX2
S14	PLAY	CASW Assy	
S101	CARTRIDGE IN		

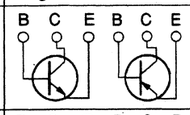
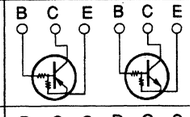
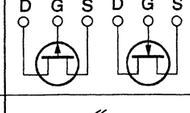
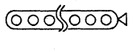
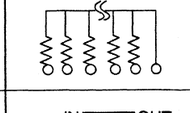
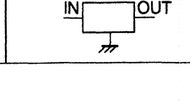
ACCN assy



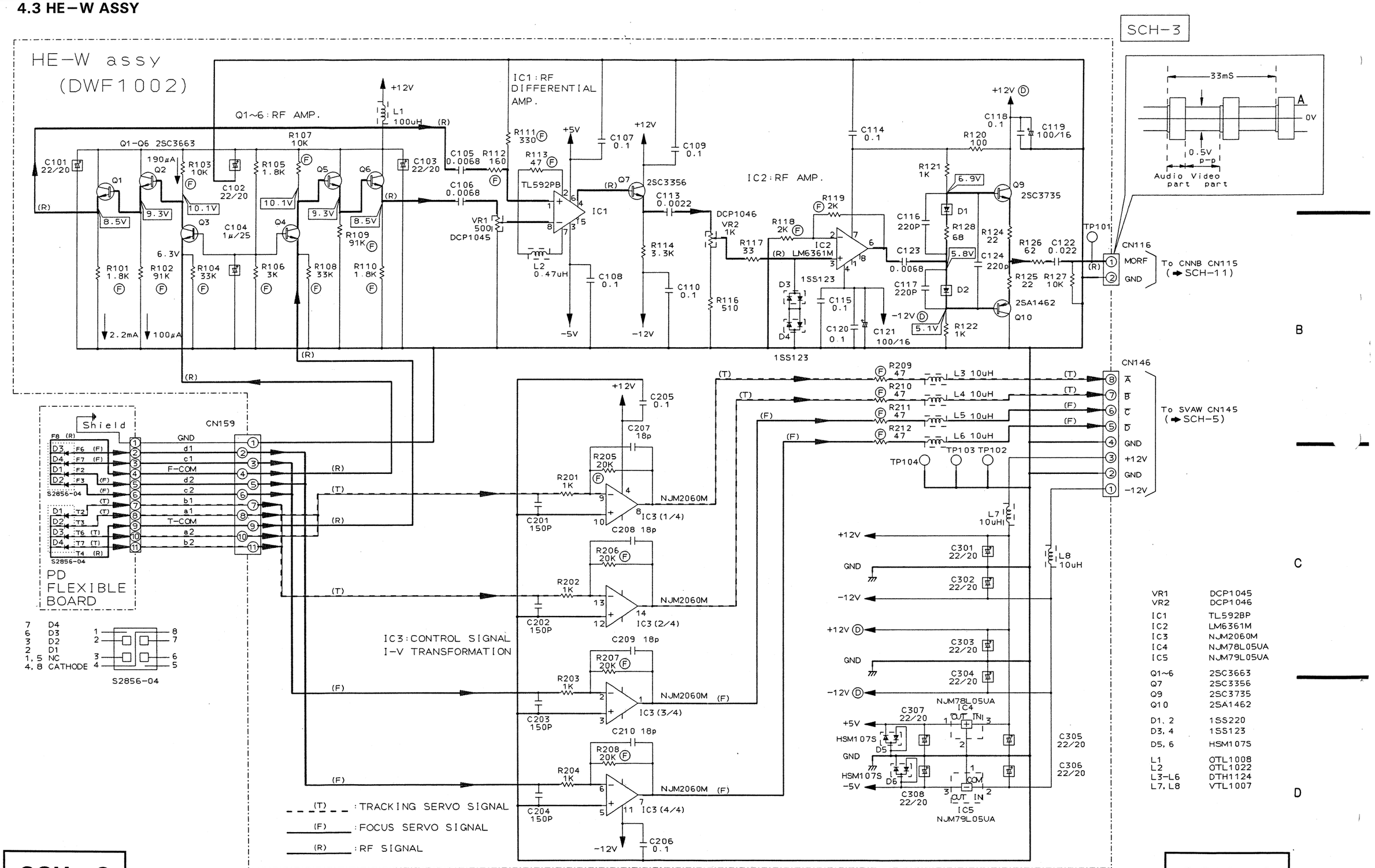


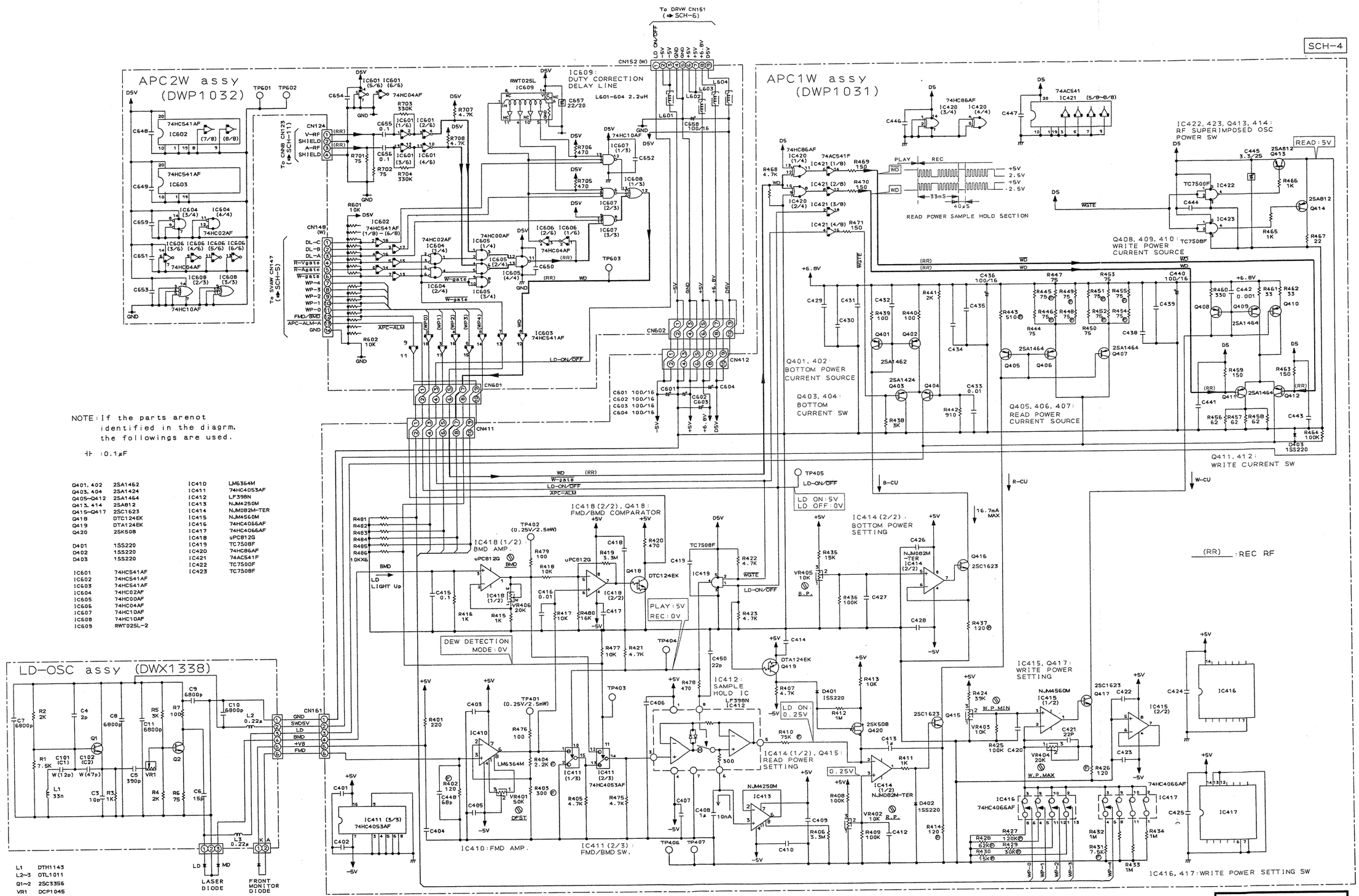
NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3- terminal regulator

4.3 HE−W ASSY


SCH−3
HE−W assy
(DWF1002)
Q1~6 : RF AMP.
IC1 : RF DIFFERENTIAL AMP.
IC2 : RF AMP.
Q1−Q6 2SC3663
TL592PB
LM6361M
2SC3356
2SC3735
2SA1462
1SS123
1SS220
HSM107S
NJM2060M
NJM78L05UA
NJM79L05UA
+12V
+5V
−5V
−12V
33mS
0.5V p-p
Audio part
Video part
TP101
CN116
MORF
GND
To CNNB CN115 (➡SCH−11)
CN146
To SVAW CN145 (➡SCH−5)
TP104
TP103
TP102
CN159
Shield
GND
d1
c1
F−COM
d2
c2
b1
a1
T−COM
a2
b2
S2856−04
PD FLEXIBLE BOARD
D4
D3
D2
D1
NC
CATHODE
S2856−04
IC3 : CONTROL SIGNAL I−V TRANSFORMATION
(T) : TRACKING SERVO SIGNAL
(F) : FOCUS SERVO SIGNAL
(R) : RF SIGNAL
VR1 DCP1045
VR2 DCP1046
IC1 TL592BP
IC2 LM6361M
IC3 NJM2060M
IC4 NJM78L05UA
IC5 NJM79L05UA
Q1~6 2SC3663
Q7 2SC3356
Q9 2SC3735
Q10 2SA1462
D1, 2 1SS220
D3, 4 1SS123
D5, 6 HSM107S
L1 OTL1008
L2 OTL1022
L3−L6 DTH1124
L7, L8 VTL1007



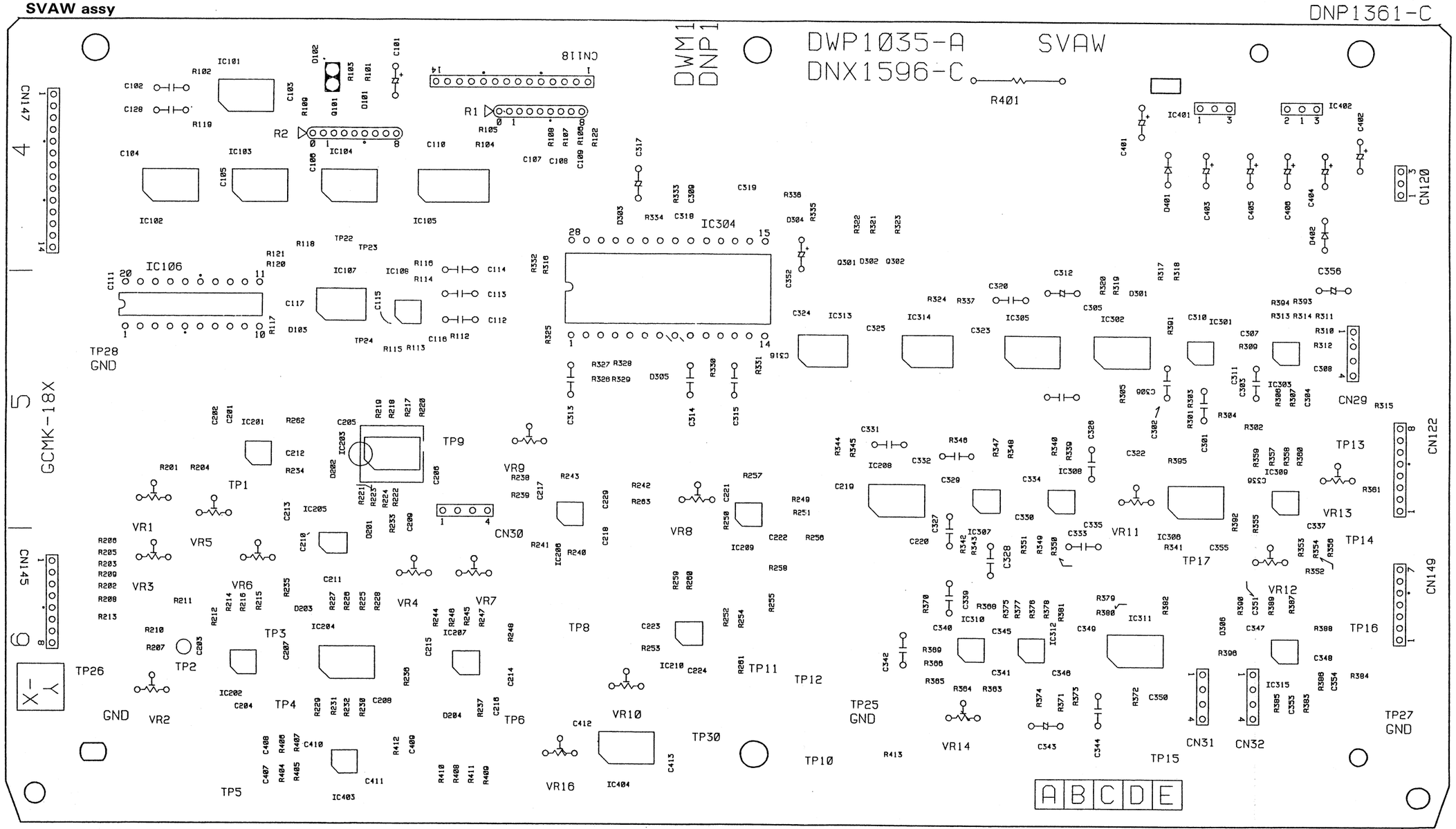
NOTE: If the parts arenot identified in the diagrm, the followings are used.

4H :0.1μF

Q401, 402	2SA1462	IC410	LM6364M
Q403, 404	2SA1424	IC411	74HC4053AF
Q405~Q412	2SA1464	IC412	LF398N
Q413, 414	2SA812	IC413	NJM4250M
Q415~Q417	2SC1623	IC414	NJM082M-TER
Q418	DTC124EK	IC415	NJM4560M
Q419	DTA124EK	IC416	74HC4066AF
Q420	2SK508	IC417	74HC4066AF
		IC418	uPC812G
D401	1SS220	IC419	TC7S08F
D402	1SS220	IC420	74HC86AF
D403	1SS220	IC421	74AC541F
		IC422	TC7S00F
IC601	74HC541AF	IC423	TC7S08F
IC602	74HC541AF		
IC603	74HC541AF		
IC604	74HC02AF		
IC605	74HC00AF		
IC606	74HC04AF		
IC607	74HC10AF		
IC608	74HC10AF		
IC609	RWT025L-2		

★ FMD:FRONT MONITOR DIODE
★ BMD:BACK LIGHT MONITOR DIODE

SVAW assy

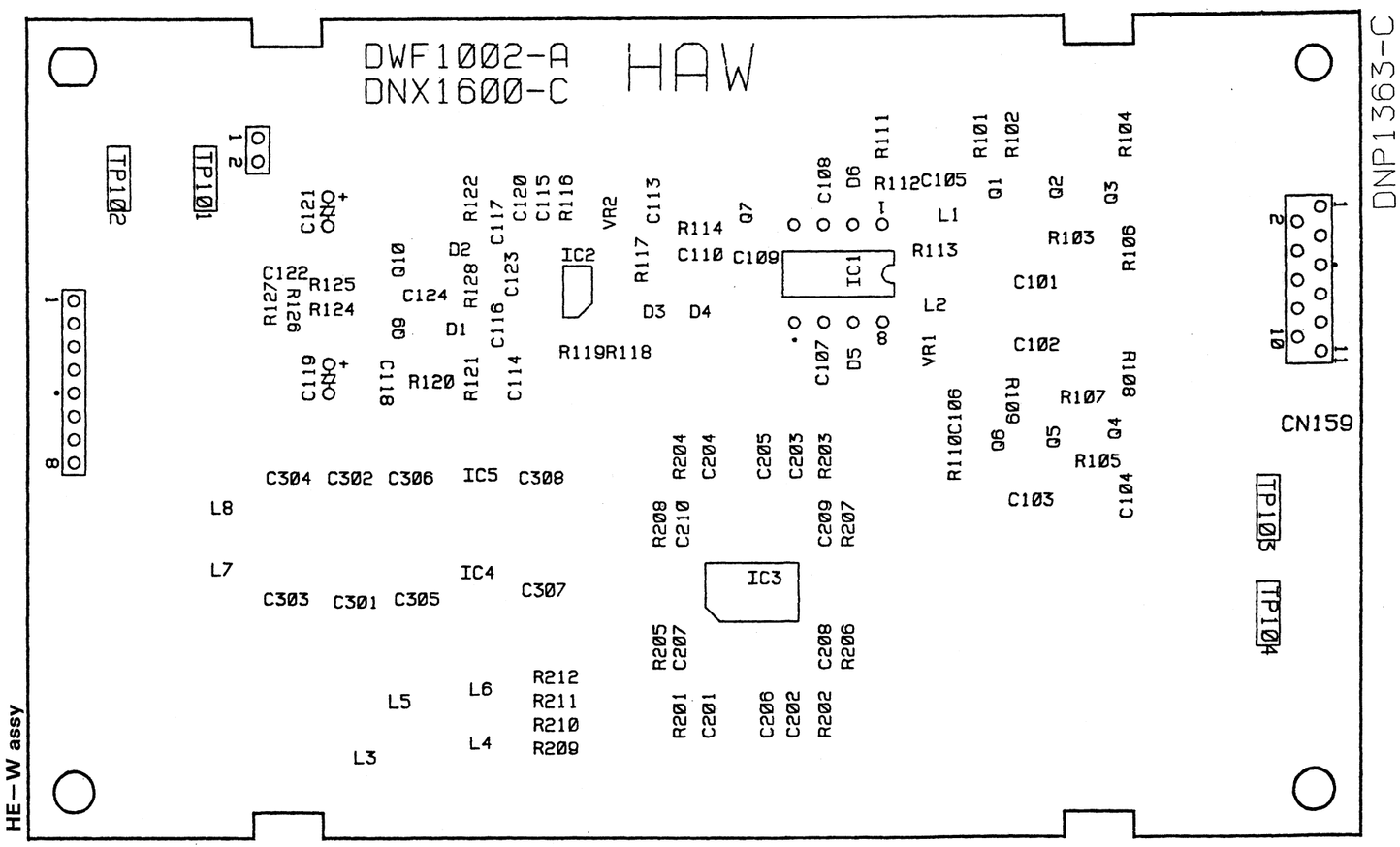


VR1 VR3 VR2 VR5 VR6 VR4 VR7 VR9 VR16 VR10 VR8 VR14 VR11 VR12 VR13

IC102 IC101 IC103 IC104 Q101 IC105 IC304 Q301 Q302 IC401 IC402

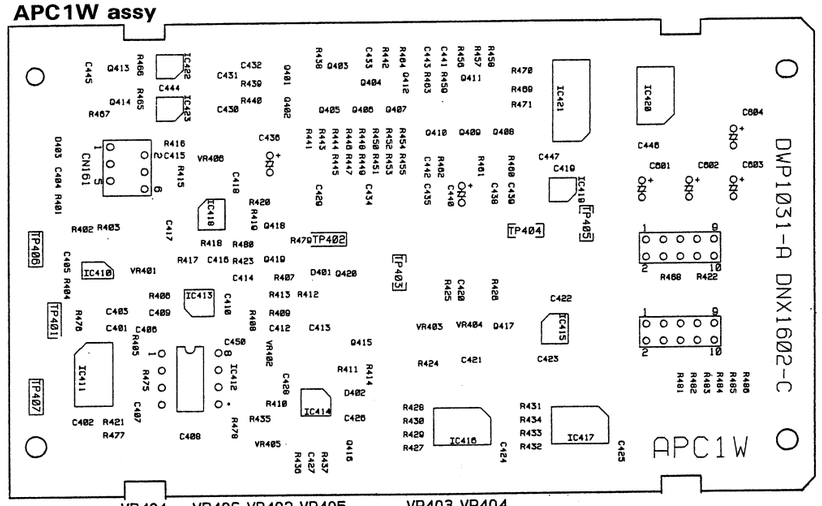
IC106 IC201 IC205 IC107 IC203 IC108 IC206 IC209 IC313 IC208 IC314 IC307 IC305 IC308 IC302 IC306 IC301 IC303 IC309

IC202 IC204 IC403 IC207 IC404 IC210 IC310 IC312 IC311 IC315


DWF1002-A
DNX1600-C
HAW
DNP1363-C
HE-W assy
CN159
IC1
IC2
IC3
IC4
IC5
VR1
VR2
TP101
TP102
TP103
TP104
TP105
C101
C102
C103
C104
C105
C106
C107
C108
C109
C110
C113
C114
C115
C116
C117
C118
C119
C120
C121
C122
C123
C124
C201
C202
C203
C204
C205
C206
C207
C208
C209
C210
C301
C302
C303
C304
C305
C306
C307
C308
D1
D2
D3
D4
D5
D6
L1
L2
L3
L4
L5
L6
L7
L8
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q9
Q10
R101
R102
R103
R104
R105
R106
R107
R108
R109
R110
R111
R112
R113
R114
R116
R117
R118
R119
R120
R121
R122
R124
R125
R126
R127
R128
R201
R202
R203
R204
R205
R206
R207
R208
R209
R210
R211
R212

4.4 LD－OSC ASSY、APC1W ASSY AND APC2W ASSY

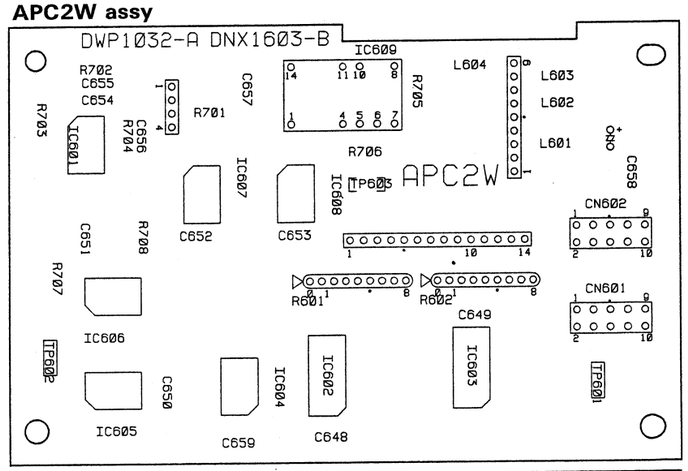
APC1W assy



VR401 VR406 VR402 VR405 VR403 VR404

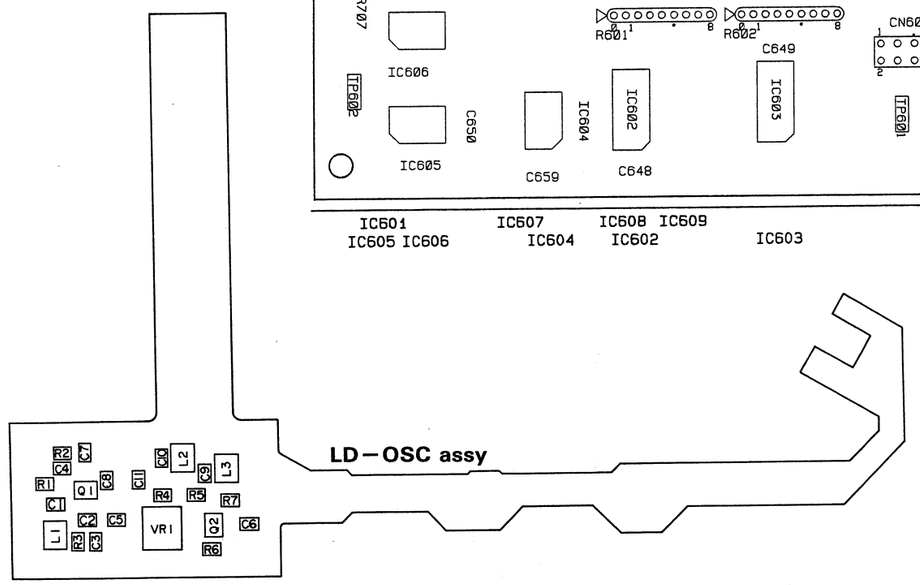
Q413 Q414 IC422 IC423 Q401－Q407 Q408－Q412 IC421 IC420
IC410 IC413 IC418 Q418－Q420 Q417 IC415 IC419
IC411 IC412 IC414 Q416 Q415 IC416 IC417

APC2W assy

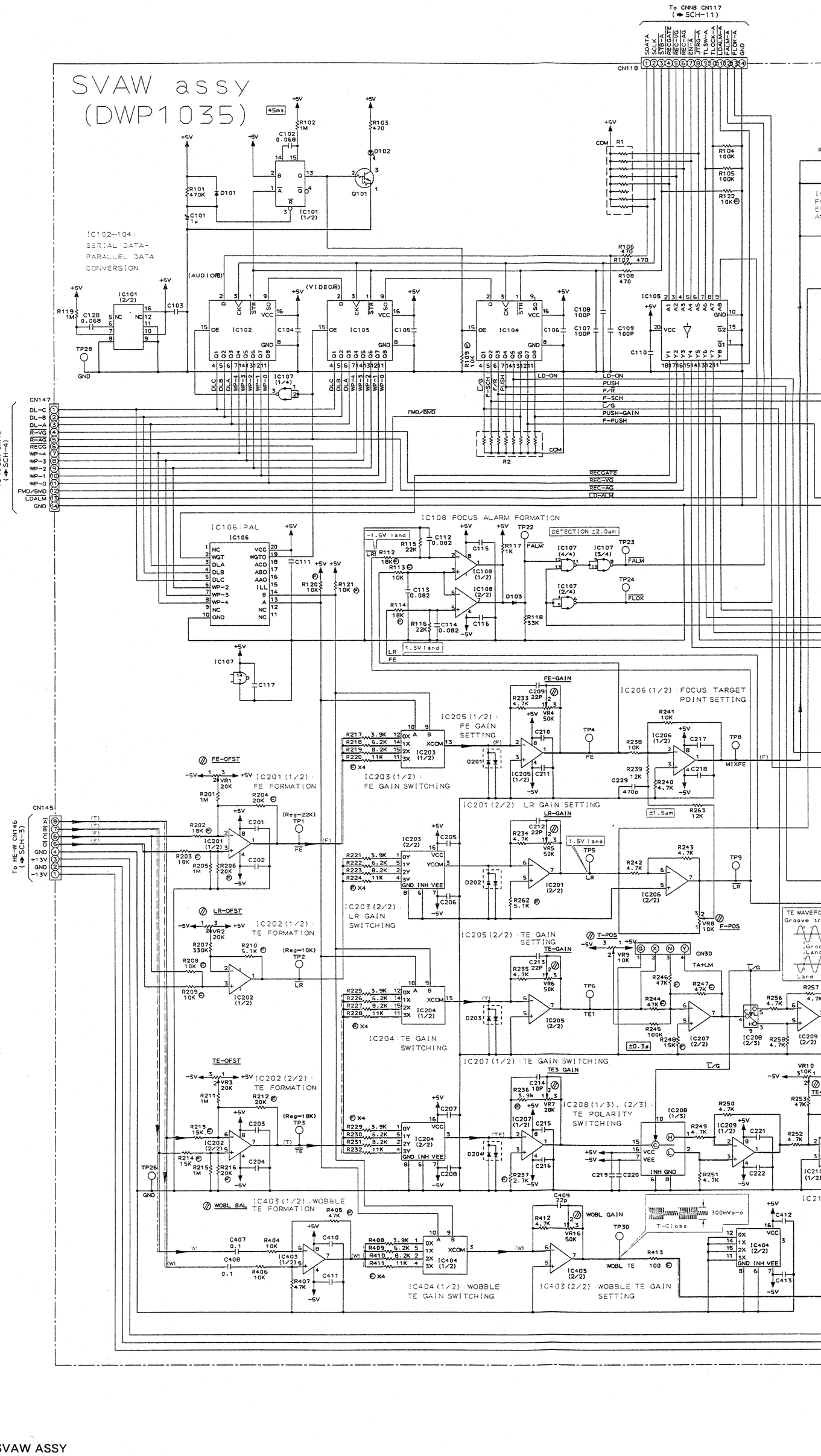


IC601 IC607 IC608 IC609
IC605 IC606 IC604 IC602 IC603

LD－OSC assy



SVAW assy (DWP1035)



SCH-5

SVAW ASSY

SCH-5

IC302(1/3), (3/3) FOCUS LOOP SW.

IC303(1/2) FOCUS EQUALIZER AMP.2

IC302(2/3) FOCUS GAIN SWITCHING

IC305(1/2) JUMP TRIGGER

IC306(3/3) FOCUS PUSH

IC304 SERVO IC

IC308(1/2): JUMP PULSE FORMATION

IC208(3/3): TRACKING LOOP SW.

IC307(2/2): TRACKING EQUALIZER AMP.2

IC308(2/2): TRACKING EQUALIZER AMP.3

IC307(1/2): TRACKING EQUALIER AMP.1

IC309(2/2): TE OFFSET ADJ.

IC311(3/3): PUSH SW.

IC310(1/2): LM GAIN ADJ.

IC310(2/2): LM EQUALIZER AMP.2

IC311(1/3), (2/3): LM LOOP SW.

IC312(1/2): LM EQUALIZER AMP.1

IC306(2/3): PUSH GAIN SWITCHING

IC210(2/2): TE OFFSET ADJ.

JUMP WAVEFORM

PAUSE JUMP WAVEFORM

IC101	74HC123AF
IC105	74HC221AF
IC102~104	TC4094BF
IC105	74HC541AF
IC106	T18PAL16L8
IC107, 313, 314	74HC00AF
IC108	NJM2903M
IC201, 202 IC206, 207 IC209, 210 IC301, 303 IC307~310 IC312, 315 IC403	NJM4560M
IC203, 204 IC404	74HC4052AF
IC205	μPC812G
IC208, 302 IC306, 311	74HC4053AF
IC304	PM4001
IC401	NJM7805FA
IC402	NJM7905FA

VR1~3, 13	DCP1024
VR7~10, 14, 15	DCP1036
VR4~6, 16	DCP1038
VR11	DCP1039
VR12	DCP1042
R1, 2	RA8T103J
D101, 103	1SS220
D301~305	1SS220
D201~204	1SS123
D306	1SS123
D102	SEL3C10RLC05
D401, 402	11ES2
Q101, 301	DTC124EK
Q302	DTC124EK

NOTE: If the parts are not identified in the diagrm, the followings are used.

抵抗: 0.1(Z)

(F) : FOCUS SERVO SIGNAL

(T) : TRACKING SERVO SIGNAL

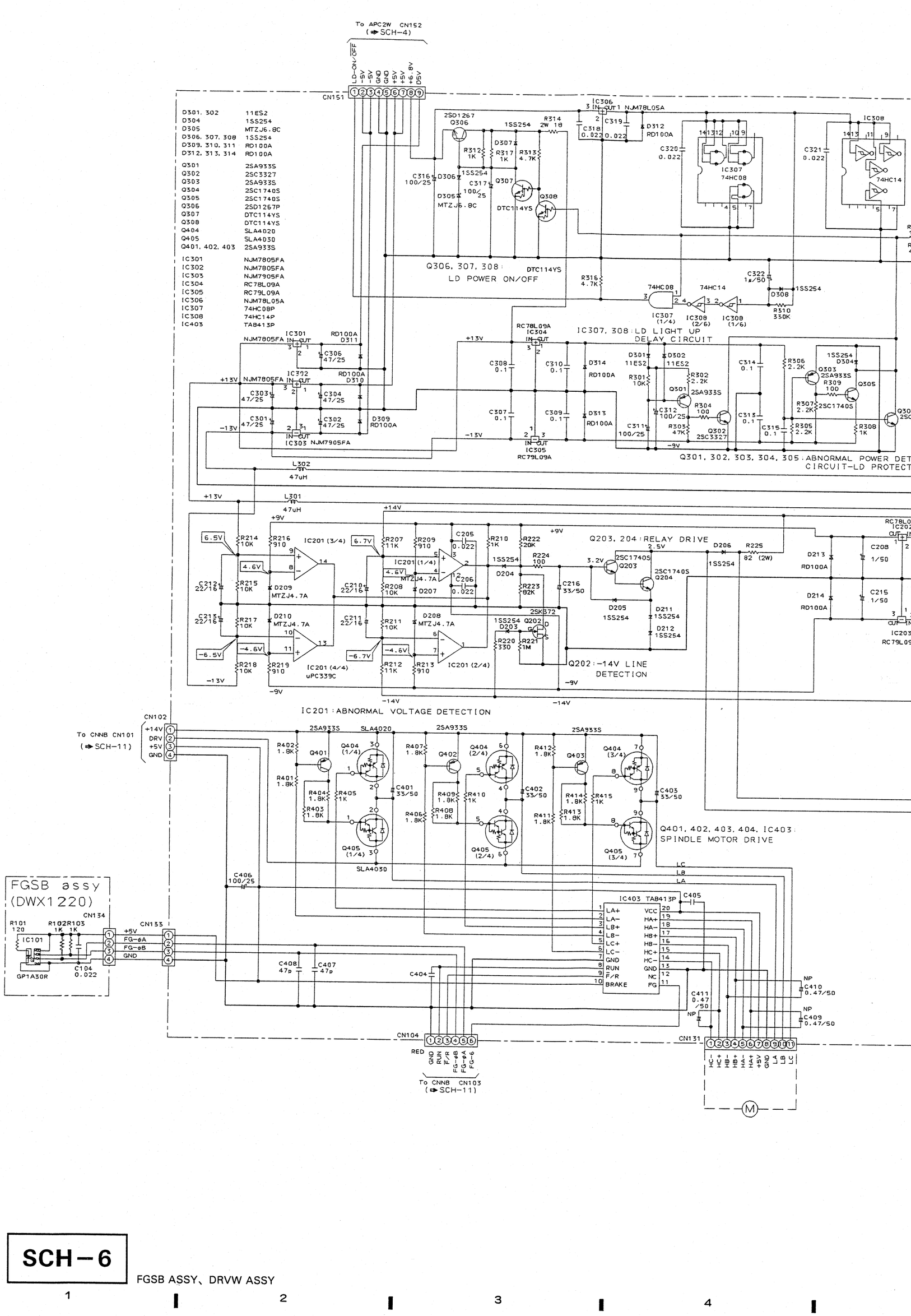
(L) : LINER MOTOR SERVO SIGNAL

(W) : WOBL SIGNAL

(TE) : TRACKING ERROR SIGNAL

(LME) : LINER MOTOR DRIVE SIGNAL

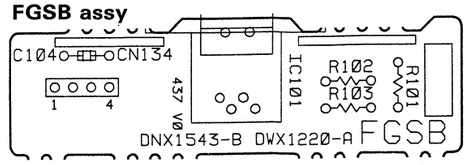
4.6 FGSB ASSY AND DRVW ASSY



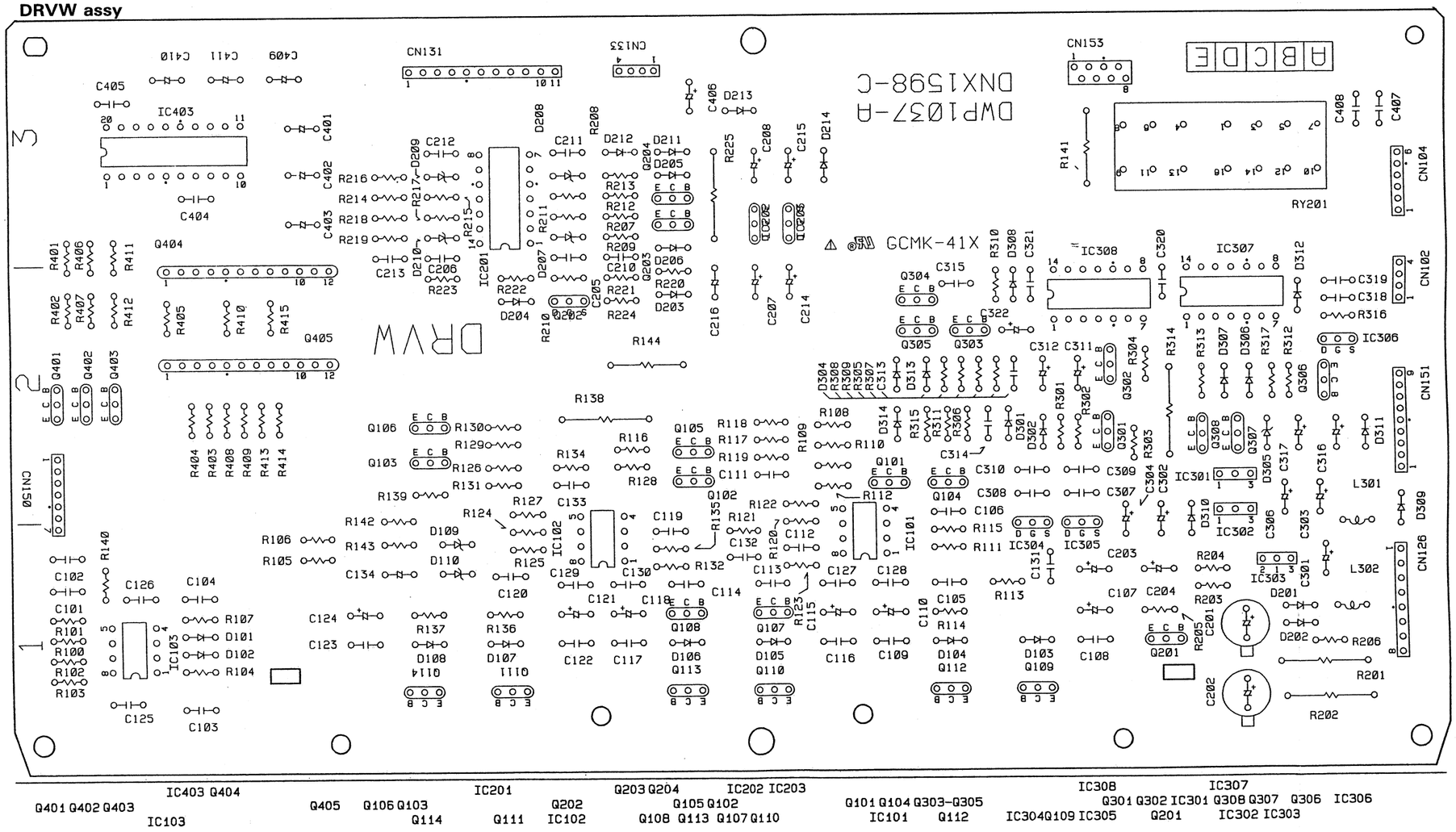
DRVW assy (DWP1037)

SCH-6

FGSB assy



DRVW assy



SCH-7

HE-E assy
(DWF1003)

Q51~56 : RF AMP.

IC51 : RF DIFFERENTIAL AMP.

IC52 : RF AMP.

IC53 : CONTROL SIGNAL I-V TRANSFORMATION

PD FLEXIBLE BOARD

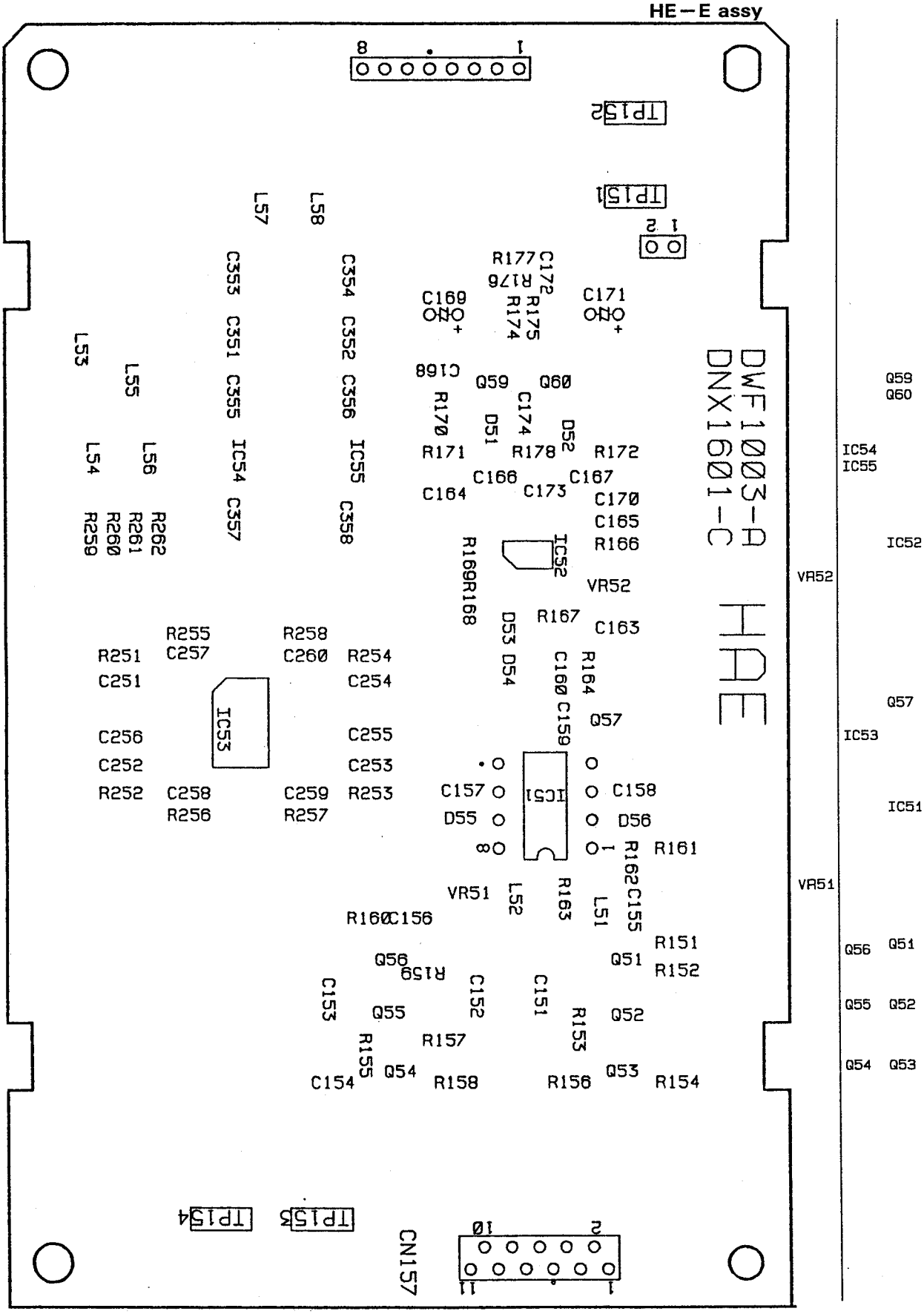
S2856-04

(R) : RF SIGNAL
(F) : FOCUS SERVO SIGNAL
(T) : TRACKING SERVO SIGNAL

VR51	DCP1045
VR52	DCP1046
IC51	TL592BP
IC52	LM6361M
IC53	NJM2060M
IC54	NJM78L05UA
IC55	NJM79L05UA
Q51-56	2SC3663
Q57	2SC3356
Q59	2SC3735
Q60	2SA1462
D51, 52	1SS220
D53, 54	1SS123
D55, 56	HSM107S
L51	OTL1008
L52	OTL1022
L53-56	DTH1124
L57, 58	VTL1007

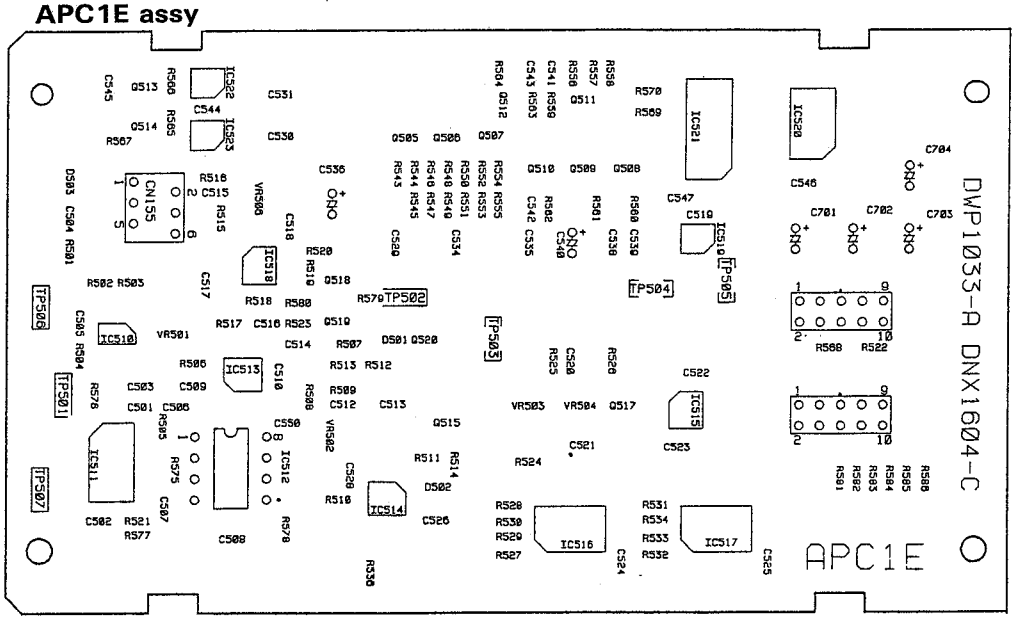
PCB-6

HE-E assy



4.8 LD－OSC ASSY、APC1E ASSY AND APC2E ASSY

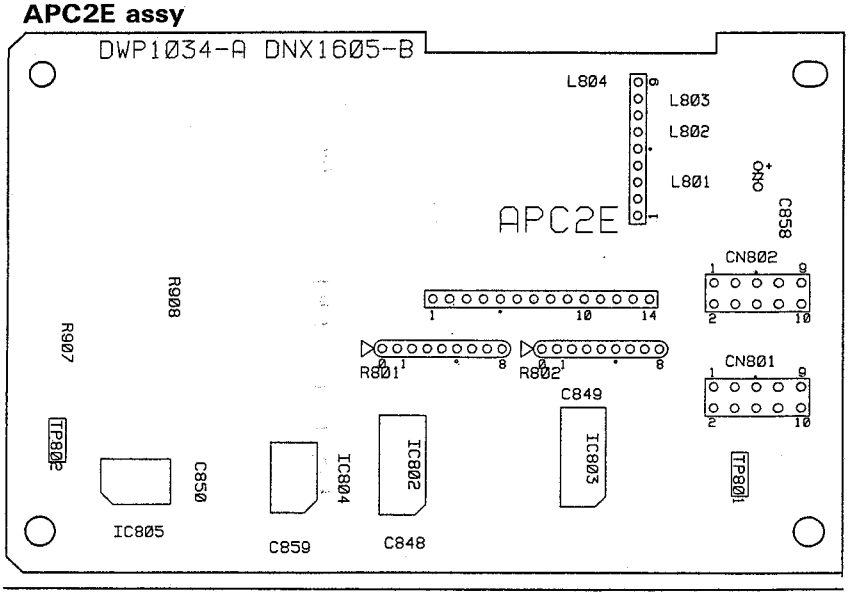
APC1E assy



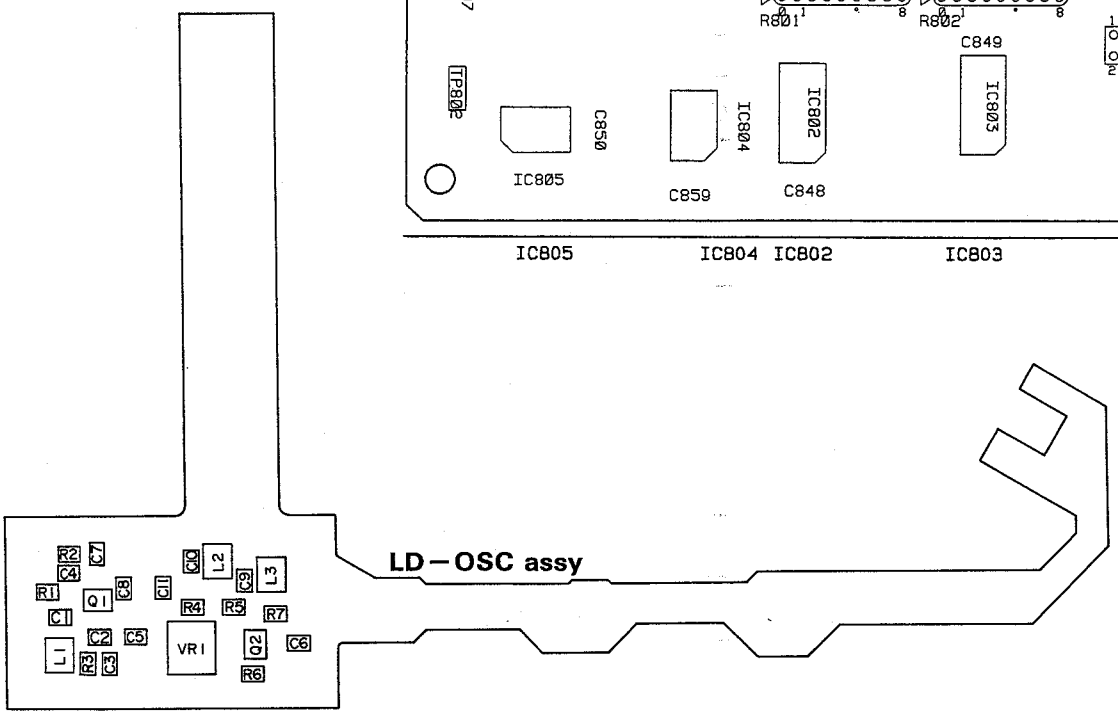
VR501 VR506 VR502　　VR503 VR504

Q513 Q514 IC522 IC523　　Q505-Q507　Q508-Q512　IC521　IC520
IC510　IC513 IC518 Q518-Q520 Q515　　Q517 IC515 IC519
IC511　　IC512　IC514　　IC516　IC517

APC2E assy



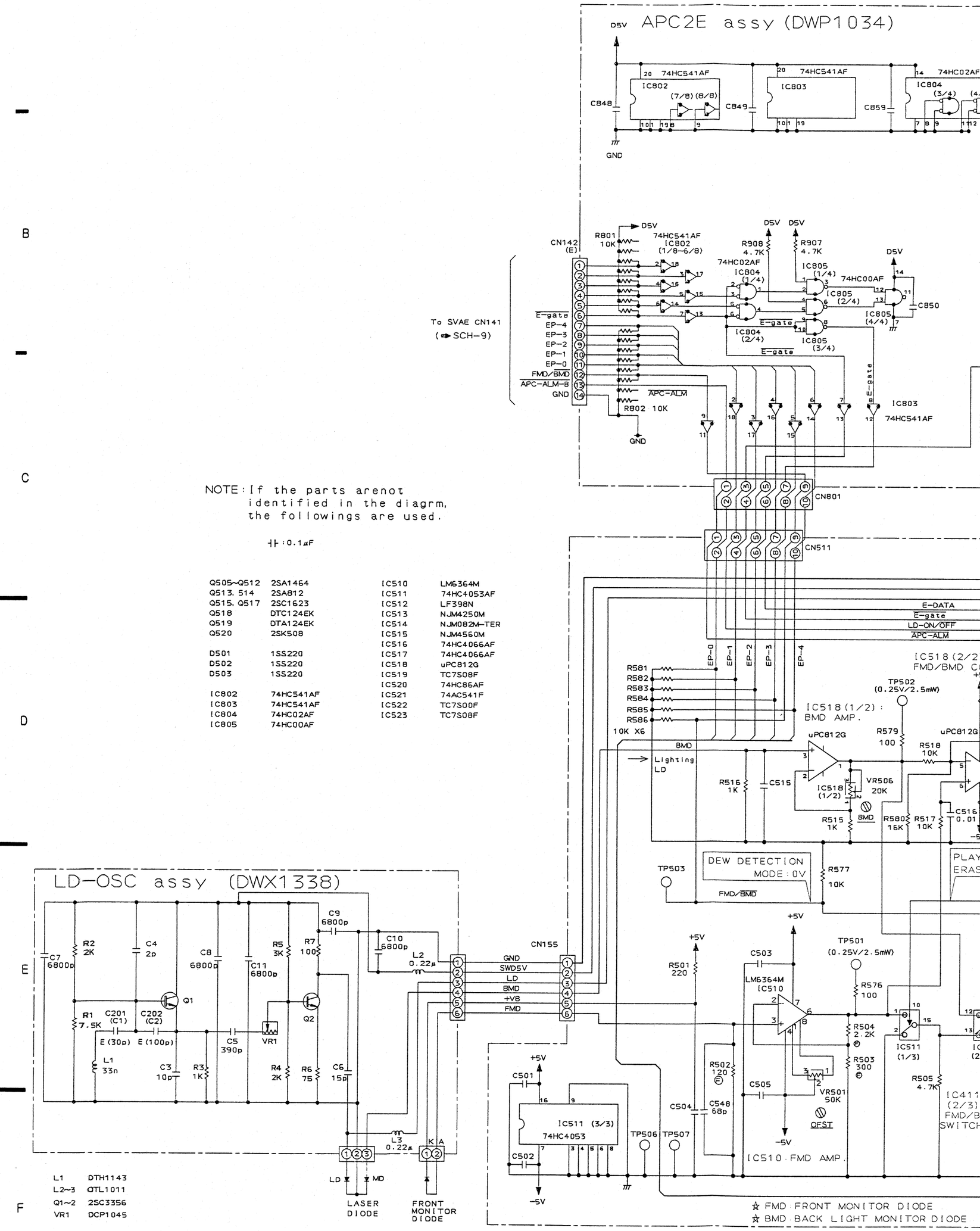
IC805　　IC804 IC802　　IC803



NOTE : If the parts arenot identified in the diagrm, the followings are used.

+ : 0.1μF

Q505~Q512	2SA1464	IC510	LM6364M
Q513, 514	2SA812	IC511	74HC4053AF
Q515, Q517	2SC1623	IC512	LF398N
Q518	DTC124EK	IC513	NJM4250M
Q519	DTA124EK	IC514	NJM082M-TER
Q520	2SK508	IC515	NJM4560M
		IC516	74HC4066AF
D501	1SS220	IC517	74HC4066AF
D502	1SS220	IC518	uPC812G
D503	1SS220	IC519	TC7S08F
		IC520	74HC86AF
IC802	74HC541AF	IC521	74AC541F
IC803	74HC541AF	IC522	TC7S00F
IC804	74HC02AF	IC523	TC7S08F
IC805	74HC00AF		



SCH-8

LD-OSC ASSY、APC1E ASSY、APC2E ASSY

SCH-8

To DRVE CN137 (➡SCH-10)

CN138 (E) LD ON/OFF -5V -5V GND GND +5V +5V +6.8V D5V

L801-804 2.2uH

L801 L802 L803 L804

C858 100/16

GND D5V

LD-ON/OFF

CN802 -5V GND +5V +6.8V D5V

CN512

C601 100/16
C602 100/16
C603 100/16
C604 100/16

C601 C602 C603 C604

-5V +5V +6.8V D5V

APC1E assy (DWP1033)

D5 74HC86AF IC520 (3/4) IC520 (4/4) C546

D5 74AC541F IC521 (5/8~8/8) C547

D5 74HC86AF IC520 (1/4) 74HC541AF IC521 (1/8) R569 150 E-DATA

R568 4.7K

IC521 (2/8) R570 150 E-DATA

IC520 (2/4) IC521 (3/8)

IC521 (4/8)

PLAY ERASE +5V +2.5V +5V +2.5V 33.3mS 40±5 READ POWER SAMPLE HOLD SECTION

IC522, 523, Q513, 514: RF SUPERIMPOSED OSC POWER SW

READ:+5V

D5 2SA812 Q513 C545 33/25 R566 1K IC522 TC7S00F C544

EGTE IC523 TC7S08F R565 1K 2SA812 Q514 R567 22

E-DATA E-DATA

Q508, 509, 510: ERASE POWER CURRENT SOURCE

+6.8V C540 100/16

C529 C530 C531 C534 C535 C536 100/16 R543 510

R545 75 R547 75 R549 75 R544 75 R546 75 R548 75

R551 75 R553 75 R555 75 R550 75 R552 75 R554 75

C538 C539

Q505 2SA1464 Q506 2SA1464 Q507 2SA1464

Q505, 506, 507: READ POWER CURRENT SOURCE

Q511, 512: ERASE POWER CURRENT SW

+6.8V R560 330 C542 R561 33 R562 33

Q508 Q509 2SA1464 Q510 2SA1464

D5 D5 R559 150 R563 150 2SA1464

C541 Q511 Q512

R556 62 R557 62 R558 62 C543

D503 R564 100K

2), Q518: COMPARATOR

+5V +5V D5V

C518 R520 470 R519 3.3M

Q518 DTC124EK

C519 R522 4.7K IC519 LD-ON/OFF

TPS05

LD ON: +5V
LD OFF: 0V

IC518 (2/2) C517

R523 4.7K

AY: 5V
ASE: 0V

TP504

R521 4.7K C550 22p S.P

LD-ON/OFF

+5V C514 Q519 DTA124EK R513 10K

R578 470

IC512: SAMPLE HOLD IC

R507 4.7K D501 R512 1M 2SK508 Q520 2SC1623 Q515

IC512 C506

LD-ON: 0.25V

C513 1μ

300

IC411 (2/3)

R575 4.7K

C509 IC513 NJM4250M C507 10nA C508 1μ

R510 75K R511 1K IC514 (1/2) NJM082M-TER D502 ISS220

LD-ON: 0.25V

R508 100K R506 3.3M VR502 10K R.P. R509 100K C512 C510 R514 120

R-CU C526 IC514 (2/2) NJM082M-TER R536 100K C528

E-CU C524 IC516

IC515, Q517: ERASE POWER SETTING

R524 39K VR503 10K E.P.MIN C520 R525 100K NJM4560M IC515 (1/2) Q517 2SC1623

C521 22P VR504 10K E.P.MAX R526 120

C522 NJM4560M IC515 (2/2) C523

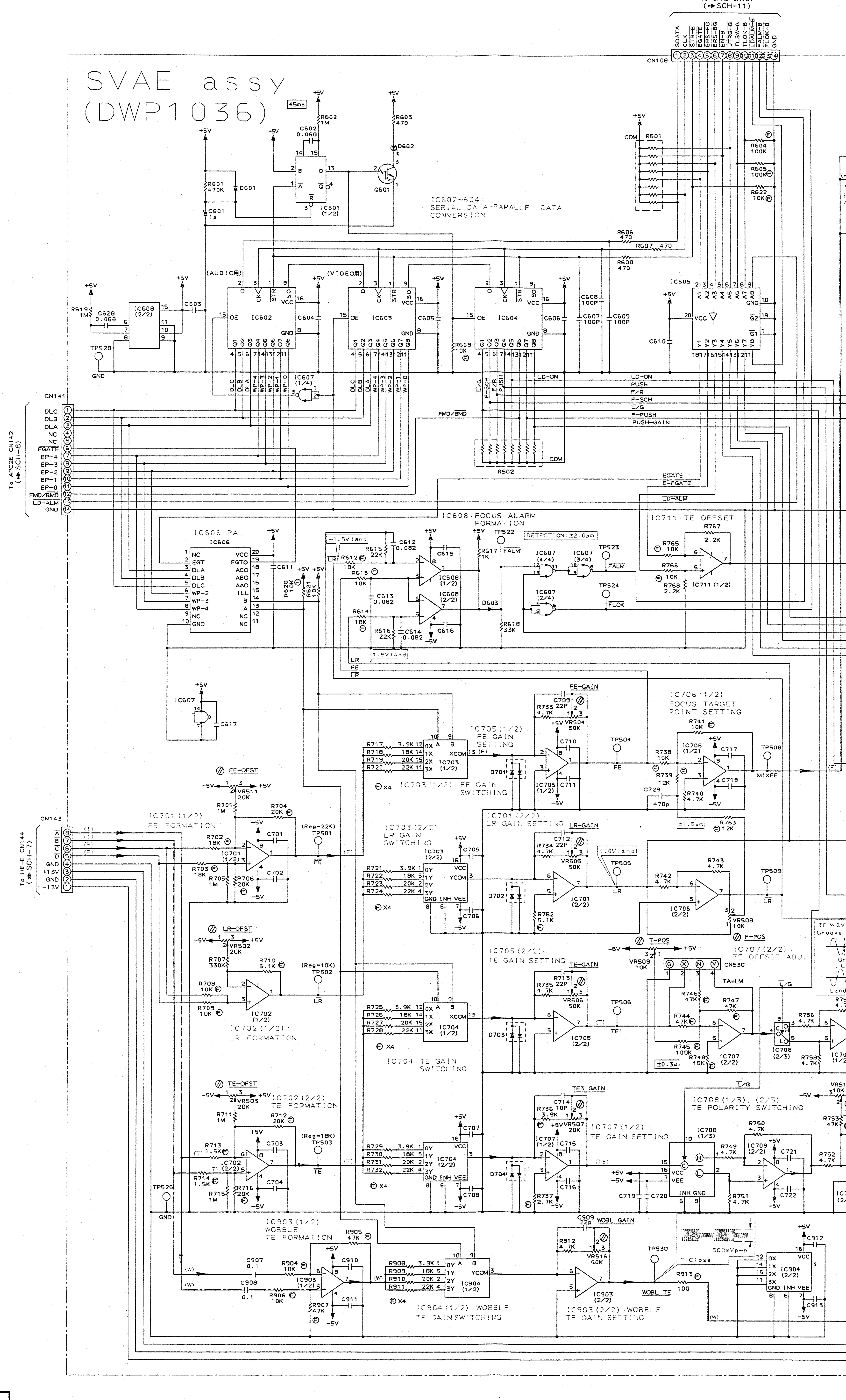
IC516, 517: ERASE POWER SETTING SW

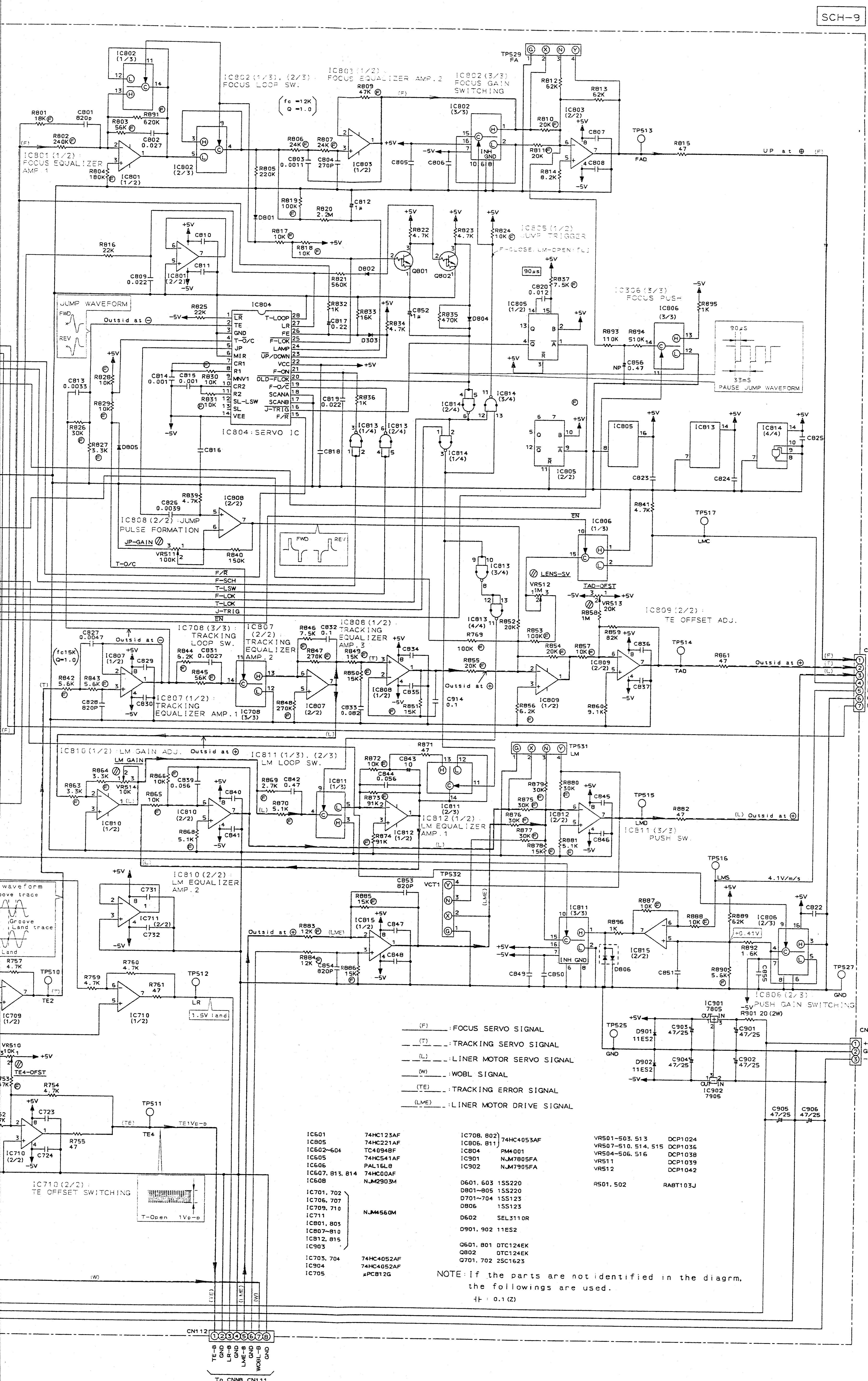
74HC4066AF IC516 74HC4066AF IC517 74HC4066AF

R527 120K R528 62K R529 30K R530 15K R531 7.5K R532 1M R533 1M R534 1M

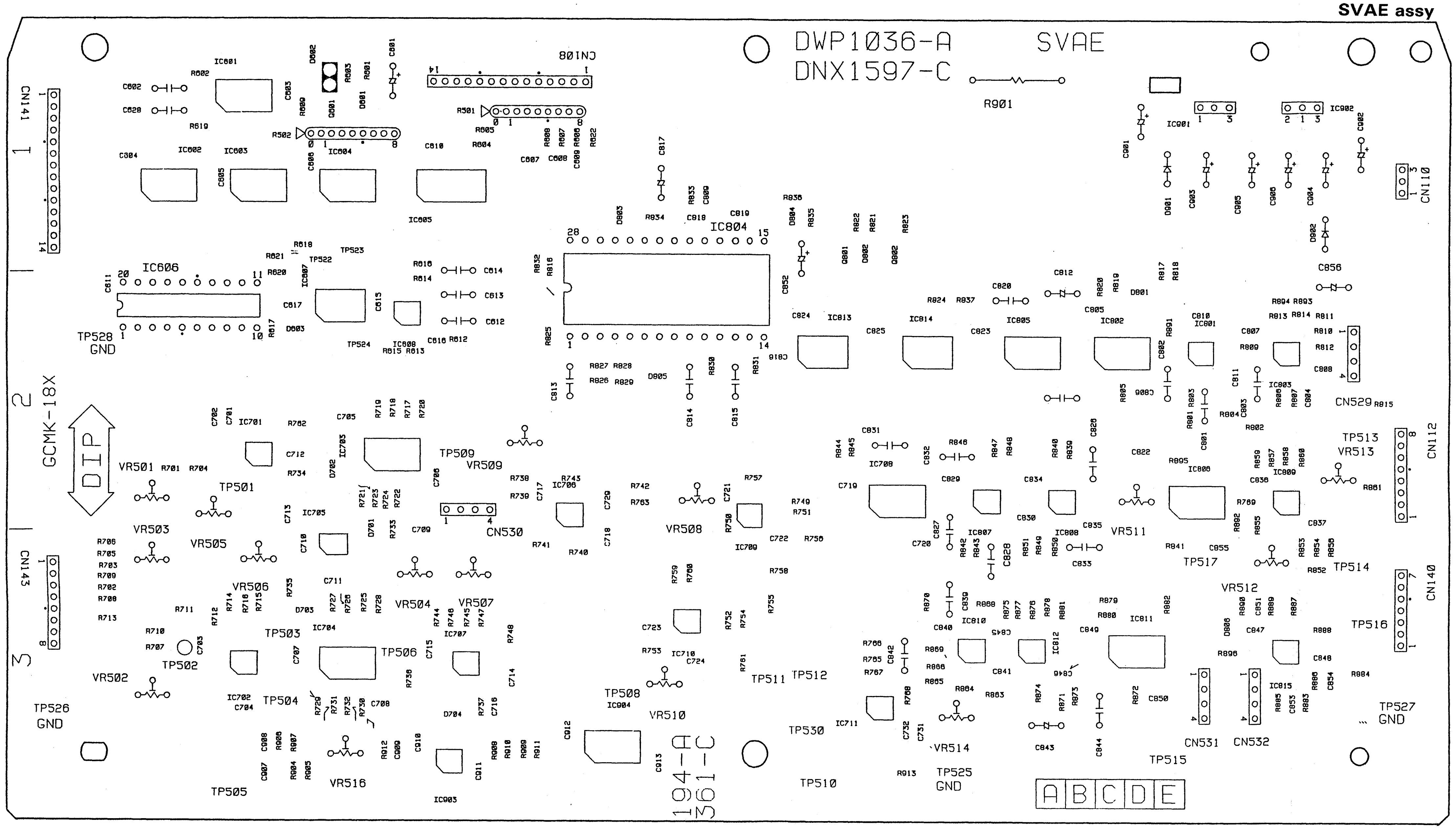
EP-0 EP-1 EP-2 EP-3 EP-4

C525 IC517


SVAE assy
(DWP1036)
To CNNB CN107
(➡SCH-11)
CN108
To APC2E CN142
(➡SCH-8)
CN141
To HE-E CN144
(➡SCH-7)
CN143
IC602~604 : SERIAL DATA-PARALLEL DATA CONVERSION
IC606 : PAL
IC608 : FOCUS ALARM FORMATION
DETECTION : ±2.0μm
IC711 : TE OFFSET
IC706 (1/2) : FOCUS TARGET POINT SETTING
IC705 (1/2) : FE GAIN SETTING
IC703 (1/2) : FE GAIN SWITCHING
IC701 (1/2) : FE FORMATION
IC701 (2/2) : LR GAIN SETTING
IC703 (2/2) : LR GAIN SWITCHING
IC702 (1/2) : LR FORMATION
IC705 (2/2) : TE GAIN SETTING
IC707 (2/2) : TE OFFSET ADJ.
IC704 : TE GAIN SWITCHING
IC702 (2/2) : TE FORMATION
IC707 (1/2) : TE GAIN SETTING
IC708 (1/3), (2/3) : TE POLARITY SWITCHING
IC903 (1/2) : WOBBLE TE FORMATION
IC904 (1/2) : WOBBLE TE GAIN SWITCHING
IC903 (2/2) : WOBBLE TE GAIN SETTING
FE-OFST
LR-OFST
TE-OFST
FE-GAIN
LR-GAIN
TE-GAIN
TE3 GAIN
WOBL GAIN
T-POS
F-POS
(AUDIO用)
(VIDEO用)


SCH-9
IC804: SERVO IC
IC801 (1/2) FOCUS EQUALIZER AMP. 1
IC802 (1/3), (2/3) FOCUS LOOP SW.
IC803 (1/2) FOCUS EQUALIZER AMP. 2
IC802 (3/3) FOCUS GAIN SWITCHING
IC805 (1/2) JUMP TRIGGER
IC806 (3/3) FOCUS PUS-
PAUSE JUMP WAVEFORM
JUMP WAVEFORM
IC808 (2/2) JUMP PULSE FORMATION
IC708 (3/3) TRACKING LOOP SW.
IC807 (2/2) TRACKING EQUALIZER AMP. 2
IC807 (1/2) TRACKING EQUALIZER AMP. 1
IC808 (1/2) TRACKING EQUALIZER AMP. 3
IC809 (2/2) TE OFFSET ADJ.
IC810 (1/2) LM GAIN ADJ.
IC811 (1/3), (2/3) LM LOOP SW.
IC812 (1/2) LM EQUALIZER AMP. 1
IC811 (3/3) PUSH SW.
IC810 (2/2) LM EQUALIZER AMP. 2
IC806 (2/3) PUSH GAIN SWITCHING
IC710 (2/2) TE OFFSET SWITCHING
CN140
FAD
TAD
LMD
LMC
LMS
GND
LDON
To DRVE CN139 (➡SCH-10)
CN110
+13V
GND
-13V
To CNNB CN109 (➡SCH-11)
CN112
TE-B
GND
LR-B
GND
LME-B
GND
WOBL-B
GND
To CNNB CN111 (➡SCH-11)
(F) : FOCUS SERVO SIGNAL
(T) : TRACKING SERVO SIGNAL
(L) : LINER MOTOR SERVO SIGNAL
(W) : WOBL SIGNAL
(TE) : TRACKING ERROR SIGNAL
(LME) : LINER MOTOR DRIVE SIGNAL
IC601 74HC123AF
IC805 74HC221AF
IC602~604 TC4094BF
IC605 74HC541AF
IC606 PAL16L8
IC607, 813, 814 74HC00AF
IC608 NJM2903M
IC701, 702
IC706, 707
IC709, 710
IC711 NJM4560M
IC801, 803
IC807~810
IC812, 815
IC903
IC703, 704 74HC4052AF
IC904 74HC4052AF
IC705 μPC812G
IC708, 802 74HC4053AF
IC806, 811 74HC4053AF
IC804 PM4001
IC901 NJM7805FA
IC902 NJM7905FA
D601, 603 1SS220
D801~805 1SS220
D701~704 1SS123
D806 1SS123
D602 SEL3110R
D901, 902 11ES2
Q601, 801 DTC124EK
Q802 DTC124EK
Q701, 702 2SC1623
VR501~503, 513 DCP1024
VR507~510, 514, 515 DCP1036
VR504~506, 516 DCP1038
VR511 DCP1039
VR512 DCP1042
RS01, 502 RABT103J
NOTE : If the parts are not identified in the diagrm, the followings are used.
0.1 (Z)

SVAE assy



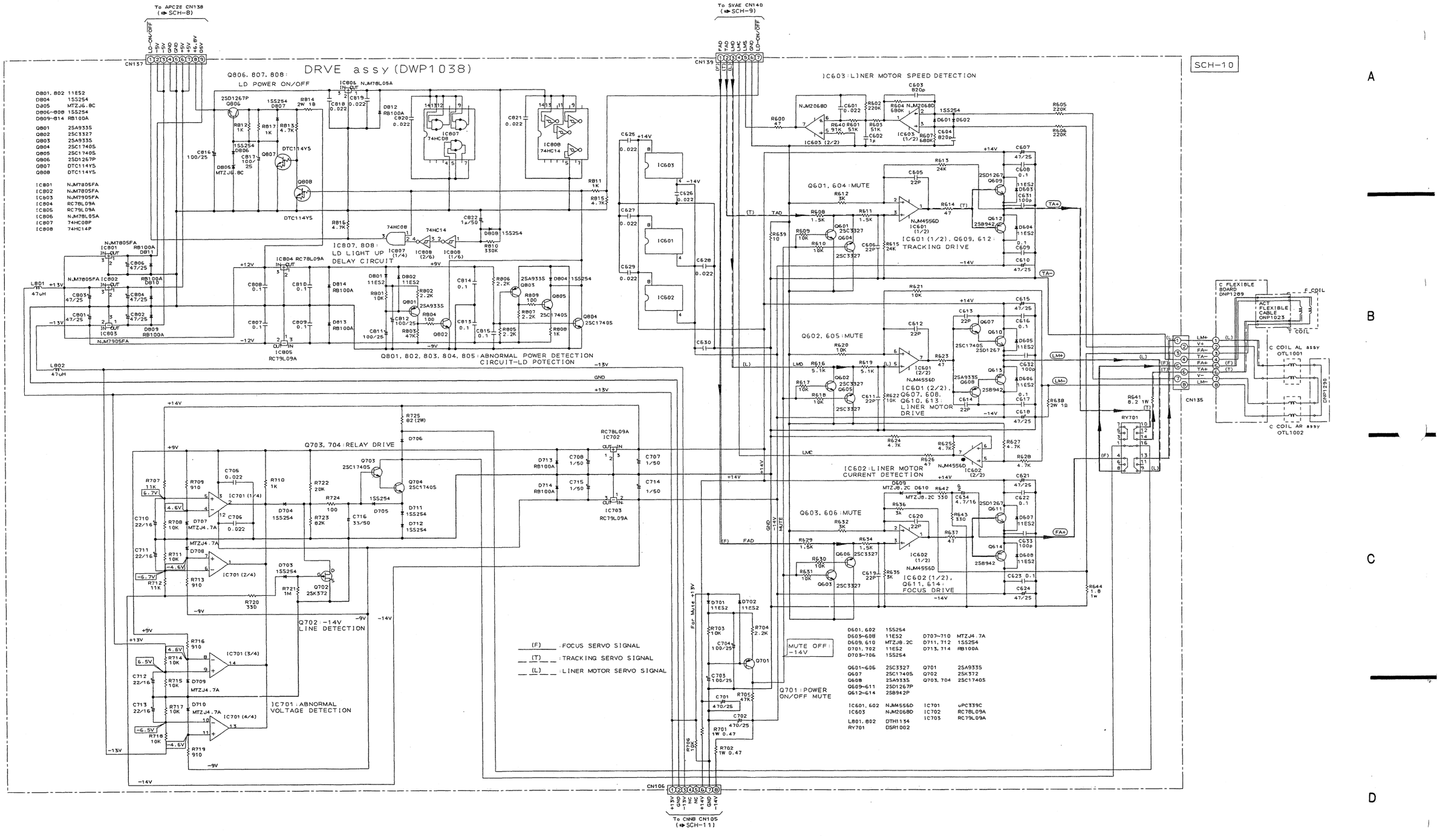
VR502 VR501 VR503 VR505 VR506 VR516 VR504 VR507 VR509 VR510 VR508 VR514 VR511 VR512 VR513

IC602 IC603 IC601 IC604 Q601 IC605 IC804 Q801 Q802 IC901 IC902

IC606 IC701 IC705 IC607 IC703 IC608 IC706 IC709 IC813 IC708 IC814 IC807 IC805 IC808 IC802 IC806 IC801 IC803 IC809

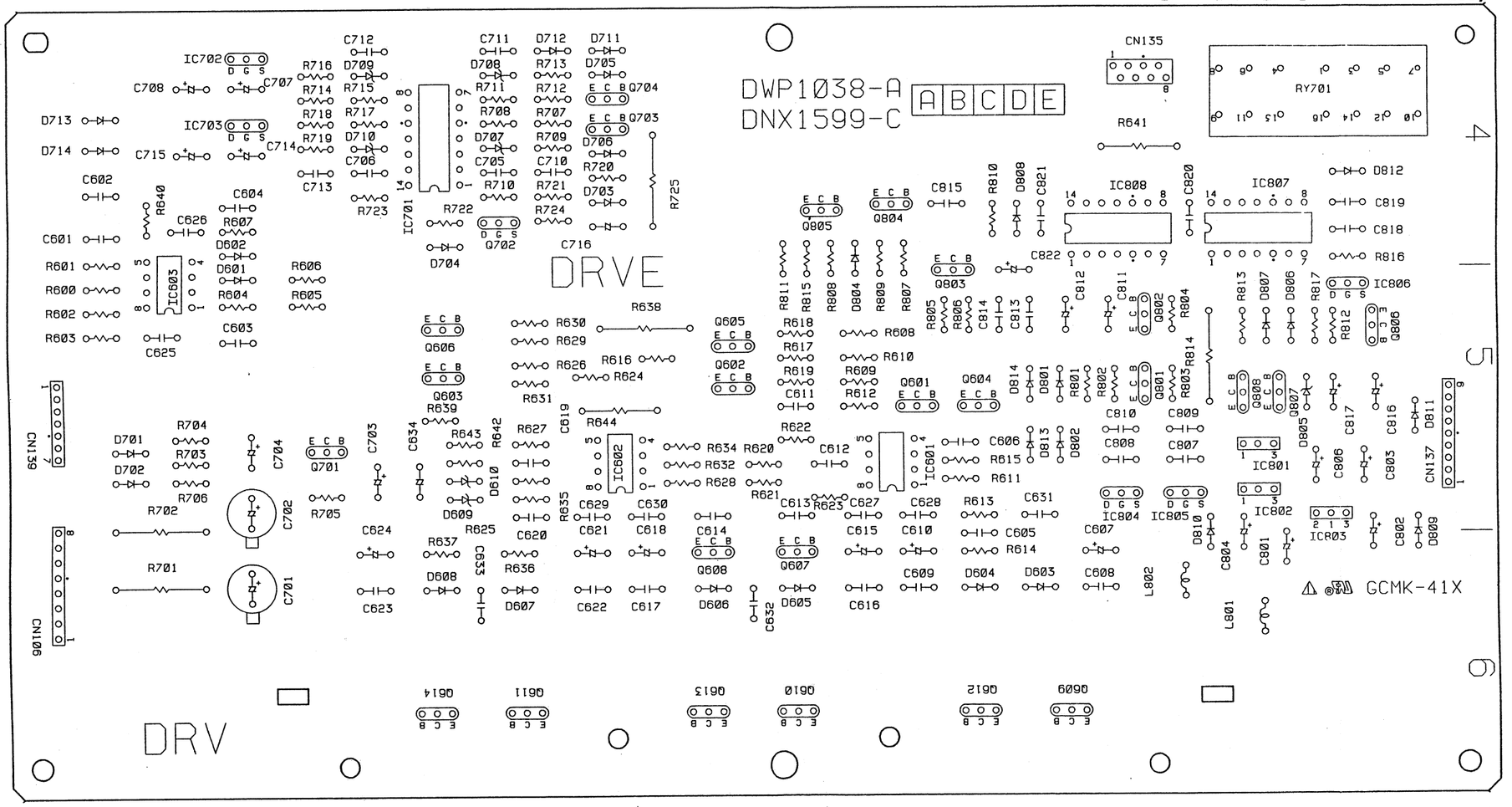
IC702 IC704 IC903 IC707 IC904 IC710 IC711 IC810 IC812 IC811 IC815

4.10 DRVE ASSY



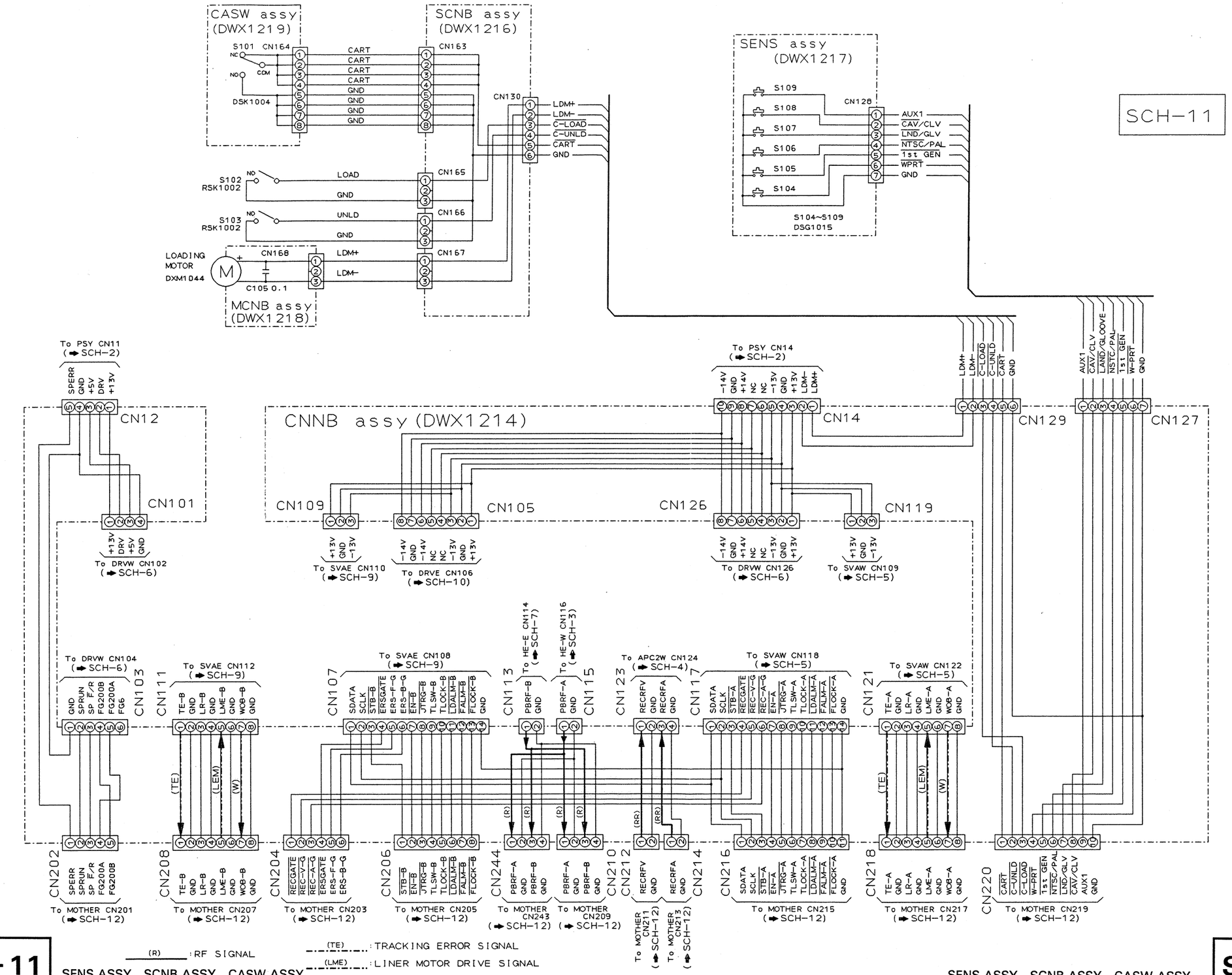
DNP1362-C **DRVE assy**

DWP1038-A
DNX1599-C



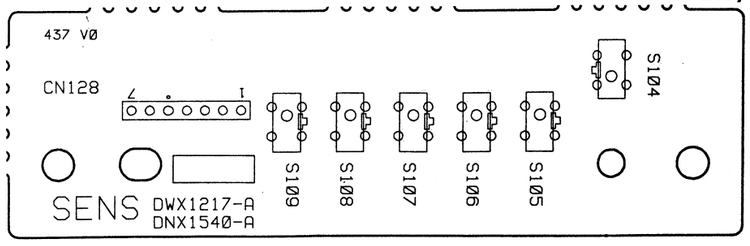
IC702 IC703 IC603 Q701 IC701 Q702 Q606 Q603 Q614 Q611 IC602 Q703 Q704 Q605 Q602 Q613 Q608 Q607 Q610 Q805 Q804 Q803 Q601 IC601 Q604 Q612 Q609 IC808 IC807 IC806 Q801 Q802 IC801－IC805 Q806－Q808

4.11 SENS ASSY、SCNB ASSY、CASW ASSY、MCNB ASSY AND CNNB ASSY

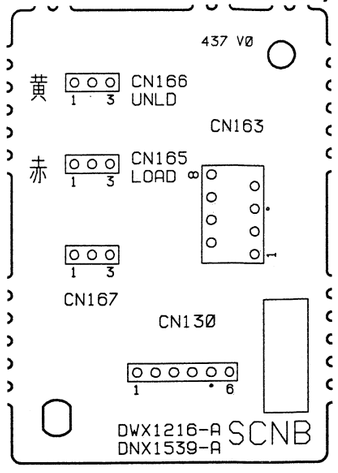


SCH−11
SENS ASSY、SCNB ASSY、CASW ASSY、MCNB ASSY、CNNB ASSY

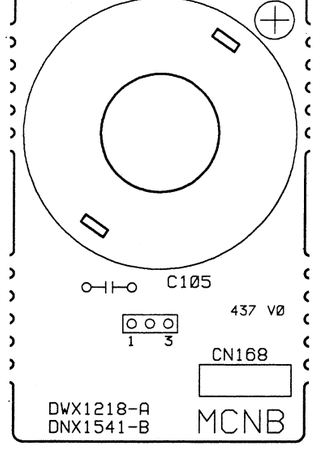
SENS assy



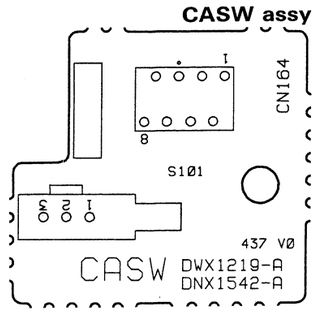
SCNB assy



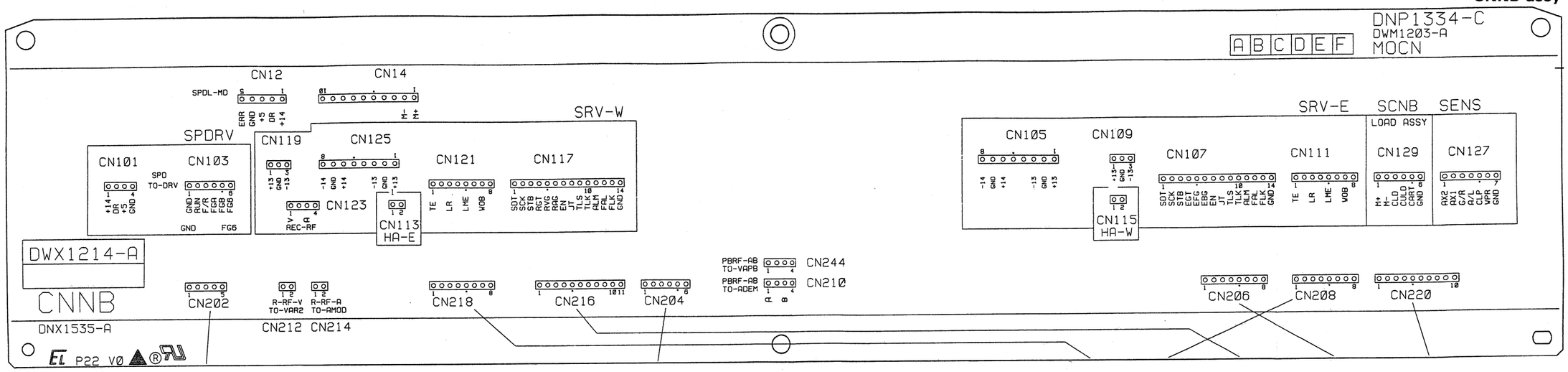
MCNB assy

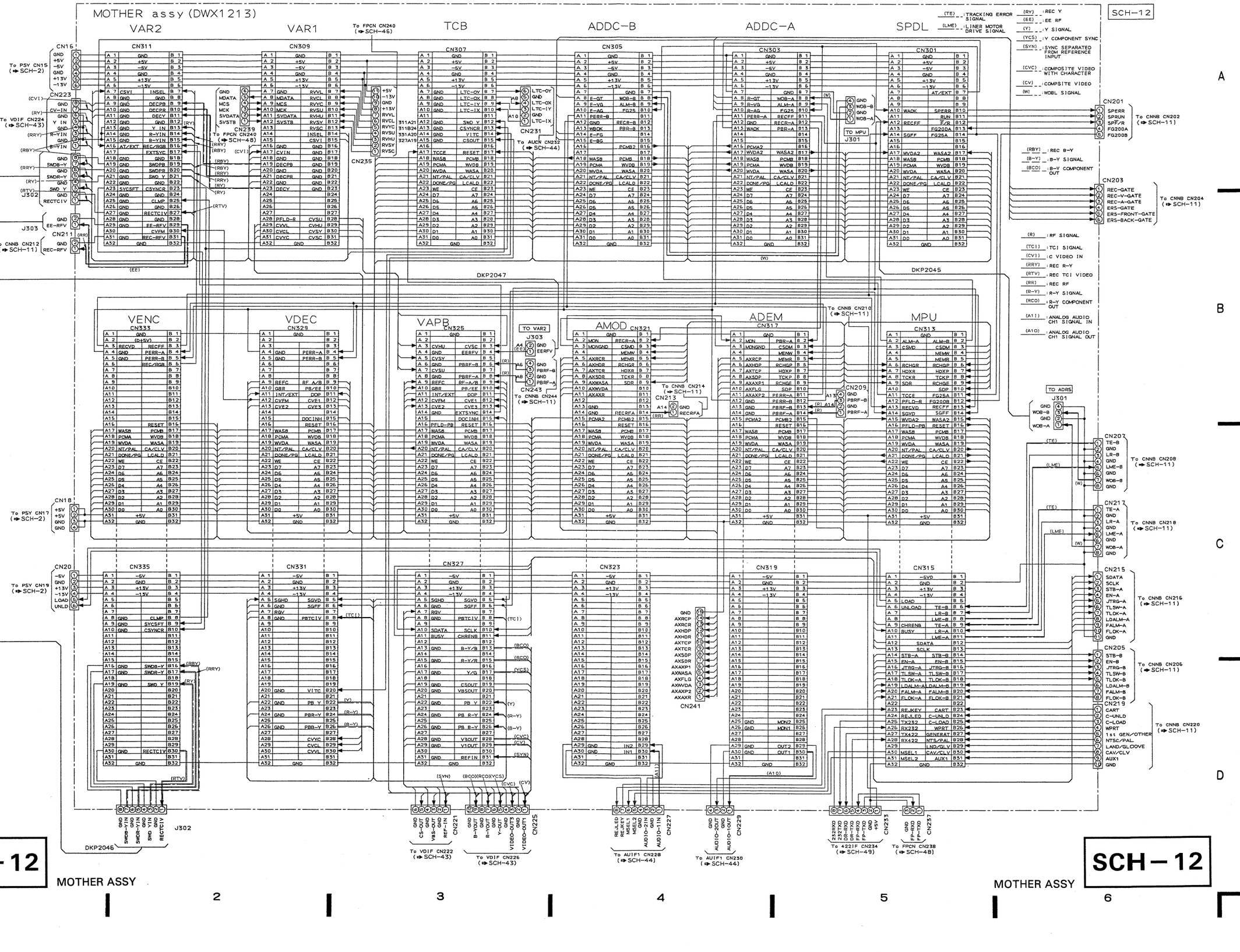


CASW assy



CNNB assy




MOTHER assy (DWX1213)
VAR2
VAR1
TCB
ADDC-B
ADDC-A
SPDL
SCH-12
VENC
VDEC
VAPB
AMOD
ADEM
MPU
CN16
CN311
CN309
CN307
CN305
CN303
CN301
CN223
CN239
CN235
CN231
CN201
CN203
CN211
J303
J302
CN243
CN213
CN209
J301
CN207
CN217
CN18
CN333
CN329
CN325
CN321
CN317
CN313
CN20
CN335
CN331
CN327
CN323
CN319
CN315
CN241
CN205
CN219
CN215
DKP2047
DKP2045
DKP2046
To PSY CN15 (➡ SCH-2)
To VDIF CN224 (➡ SCH-43)
To CNNB CN212 (➡ SCH-11)
To FPCN CN240 (➡ SCH-46)
To FPCN CN240 (➡ SCH-48)
To AUCN CN232 (➡ SCH-44)
To CNNB CN210 (➡ SCH-11)
To CNNB CN214 (➡ SCH-11)
To CNNB CN244 (➡ SCH-11)
TO VAR2
TO ADRS
To PSY CN17 (➡ SCH-2)
To PSY CN19 (➡ SCH-2)
To VDIF CN222 (➡ SCH-43)
To VDIF CN226 (➡ SCH-43)
To AU1F1 CN228 (➡ SCH-44)
To AU1F1 CN230 (➡ SCH-44)
To 422IF CN234 (➡ SCH-49)
To FPCN CN238 (➡ SCH-48)
To CNNB CN202 (➡ SCH-11)
To CNNB CN204 (➡ SCH-11)
To CNNB CN208 (➡ SCH-11)
To CNNB CN218 (➡ SCH-11)
To CNNB CN216 (➡ SCH-11)
To CNNB CN206 (➡ SCH-11)
To CNNB CN220 (➡ SCH-11)
TO MPU J301
(TE) : TRACKING ERROR SIGNAL
(LME) : LINER MOTOR DRIVE SIGNAL
(RY) : REC Y
(EE) : EE RF
(Y) : Y SIGNAL
(YCS) : Y COMPONENT SYNC
(SYN) : SYNC SEPARATED FROM REFERENCE INPUT
(CVC) : COMPOSITE VIDEO WITH CHARACTER
(CV) : COMPSITE VIDEO
(W) : WOBL SIGNAL
(RBY) : REC B-Y
(B-Y) : B-Y SIGNAL
(BCO) : B-Y COMPONENT OUT
(R) : RF SIGNAL
(TCI) : TCI SIGNAL
(CVI) : C VIDEO IN
(RRY) : REC R-Y
(RTV) : REC TCI VIDEO
(RR) : REC RF
(R-Y) : R-Y SIGNAL
(RCO) : R-Y COMPONENT OUT
(A11) : ANALOG AUDIO CH1 SIGNAL IN
(A10) : ANALOG AUDIO CH1 SIGNAL OUT

MOTHER assy

DWX1213-A

MOTHER

DNX1534-B

P22 V0

CN201

CN203

CN217 W

CN207 E

CN215 W

CN205 E

CN219

CN301

CN303

CN305

CN307

CN309

CN311

CN313

CN315

CN317

CN319

CN321

CN323

CN325

CN327

CN329

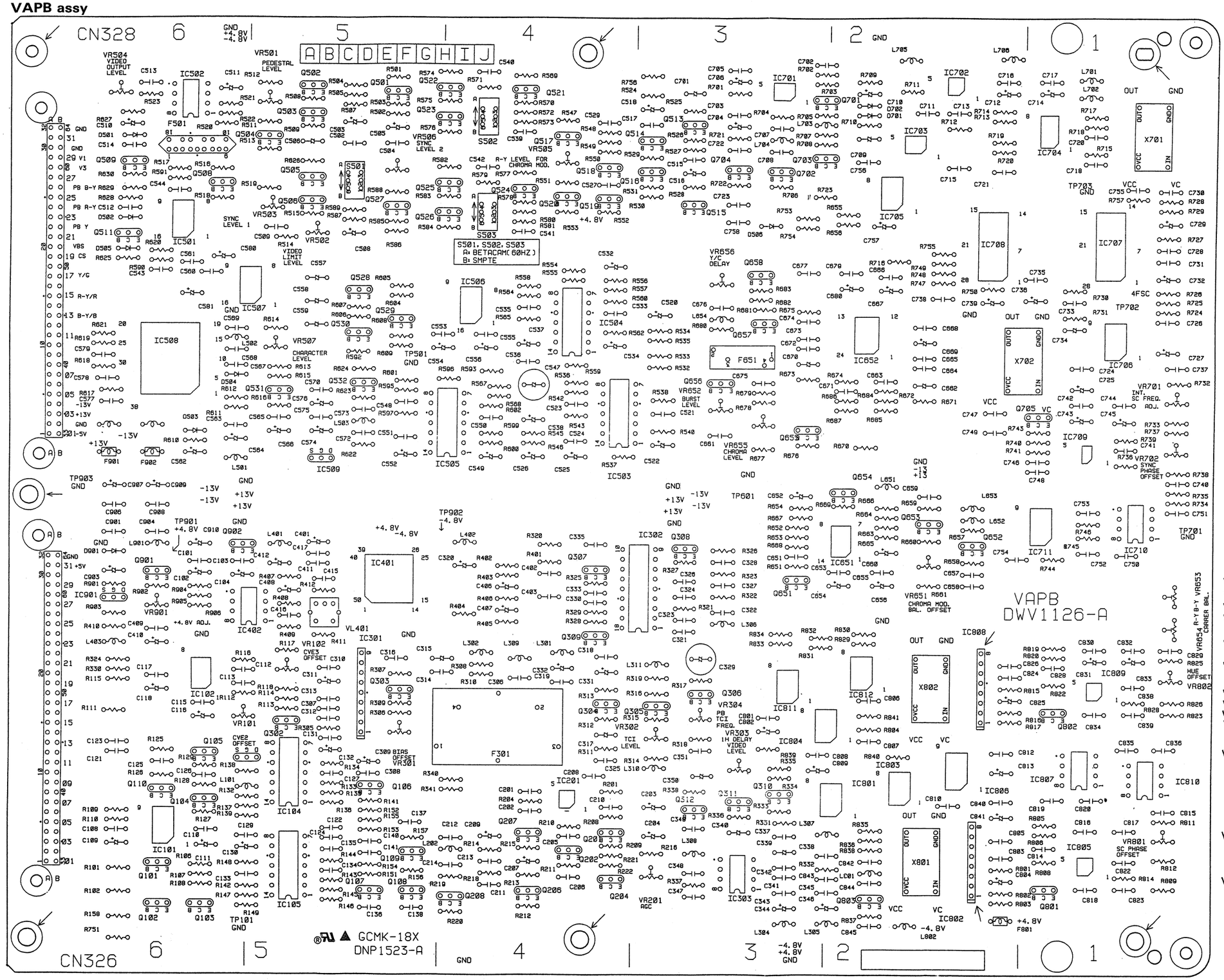
CN331

CN333

CN335

4.13 VAPB ASSY

VAPB assy



VR504	Q502	Q501	IC701	IC702
VR501	IC502	Q517	Q701	
	Q503			IC704
	Q509		Q513	
VR505	Q504		Q514	IC703
VR506			Q703	
	Q505		Q704	
	Q508		Q516	
	Q506	Q530	Q702	
VR503			Q515	
	Q511		IC705	IC708
VR502	IC501			
				IC707
VR656			Q658	
	IC507	IC506		
	IC508	IC504	IC652	
			Q657	IC706
VR507				
VR701		Q532	Q656	
VR652	Q531		IC503	
				Q705
VR655		IC505	Q655	
VR702				IC709
		IC509		
			Q654	
			IC651	Q653
				IC711
	Q902	IC401	Q308	Q652
	Q901	Q307	IC302	IC710
VR651			Q651	
VR653	IC402			
VR901	IC901			
VR654				
VR102	IC102	Q309		
VR802		IC301		
		Q303	IC812	IC808
			IC811	IC809
VR101			Q306	
VR301			Q305	
VR304	Q302			
VR302		Q304	IC804	Q802
VR303	Q105			
			IC803	IC806
	IC104			IC807
	Q110	Q106	IC801	IC810
	Q104	IC201	Q310	
	IC101		Q311	
			Q312	
		Q207	Q201	
VR801		Q109		
		Q202		IC805
	Q101			
VR201	Q102			
	Q103	Q107	Q204	
	IC105	Q108	IC303	Q801
		Q206	Q803	
		Q208		IC802

VAPB assy (1/6) (DWV1126)

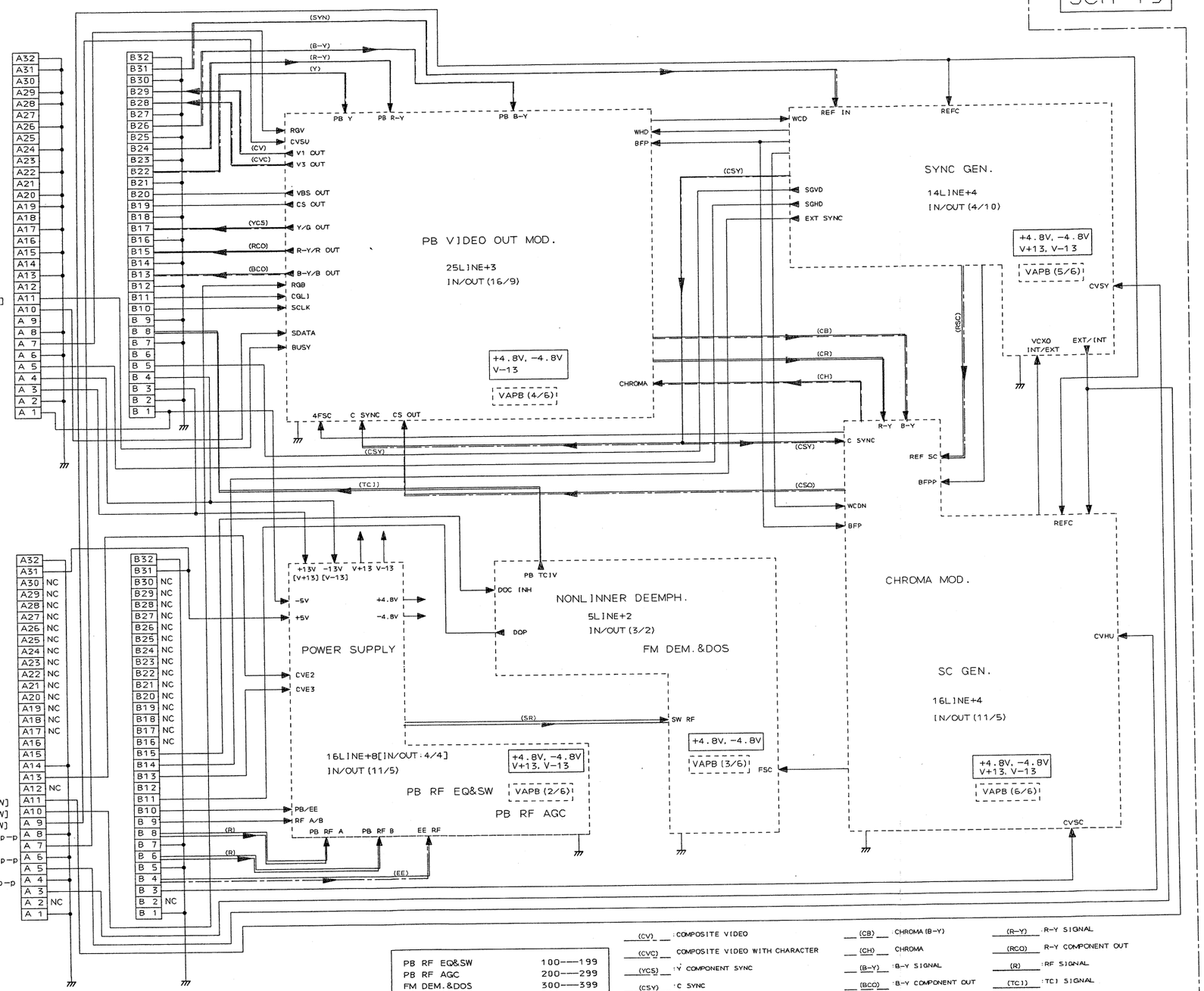
CN328 To MOTHER assy CN327 (➡SCH-12)

	A32	GND		B32	GND	
	A31	GND	fromVIO	B31	REF IN -0.15V	
	A30	(GND)		B30	(GND)	
	A29	GND	to VIO	B29	V1 OUT 0.59V	2.00Vp-p
	A28	GND	to VIO	B28	V3 OUT 0.51V	2.00Vp-p
	A27	(GND)		B27	(GND)	
	A26	GND	fromVDEC	B26	PB B-Y -0.14V	0.700Vp-p
	A25	(GND)		B25	(GND)	
	A24	GND	fromVDEC	B24	PB R-Y -0.14V	0.700Vp-p
	A23	(GND)		B23	(GND)	
	A22	GND	fromVDEC	B22	PB Y -0.12V	0.700Vp-p
	A21	(GND)		B21	(GND)	
	A20	GND	to VIO	B20	VBS OUT -0.04V	
	A19	GND	to VIO	B19	CS OUT +0.22V	
	A18	(GND)		B18	(GND)	
	A17	GND	to VIO	B17	Y/G OUT +0.28V	2.00Vp-p
	A16	(GND)		B16	(GND)	
	A15	GND	to VIO	B15	R-Y/R OUT -0.4mV	2.00Vp-p
	A14	(GND)		B14	(GND)	
	A13	GND	to VIO	B13	B-Y/B OUT -0.4mV	2.00Vp-p
	A12	(GND)		B12	(GND)	
BUSY [LOW] to MPU	A11	BUSY 4.77V	fromMPU	B11	CGLI 4.29V	CGLI [LOW]
fromMPU	A10	SDATA (CHR) 0.21V	fromMPU	B10	SCLK (CHR) 4.46V	
	A 9	(GND)		B 9	(GND)	
	A 8	GND	to VDEC	B 8	PB TCIV -0.08V	2.00Vp-p
fromVDEC	A 7	RGV -0.05V		B 7	(GND) 0.0V	
	A 6	GND		B 6		
to VDEC	A 5	SGHD 0.75V		B 5	SGVD 0.45V	
	A 4	-13V		B 4	-13V -13.01V	
	A 3	+13V		B 3	+13V +13.04V	
	A 2	GND		B 2	GND 0.0V	
	A 1	-5V		B 1	-5V -5.17V	

to MPU + SPDL + LTC

CN326 To MOTHER assy CN325 (➡SCH-12)

	A32	GND		B32	GND	
	A31	+5V		B31	+5V	
	A30	D0		B30	A0	
	A29	D1		B29	A1	
	A28	D2		B28	A2	
	A27	D3		B27	A3	
	A26	D4		B26	A4	
	A25	D5		B25	A5	
	A24	D6		B24	A6	
	A23	D7		B23	A7	
	A22	WE		B22	CE	
	A21	DONE/PG		B21	LCALD	
	A20	NT/PAL		B20	CA/CLV	
	A19	WVDA		B19	WASA	
	A18	PCMA		B18	WVDB	
	A17	WASB		B17	PCMB	
	A16			B16	RESET	
	A15		fromVDEC	B15	DOC INH 0.0V	
	A14	GND	fromVAR2	B14	EXT SYNC 4.37V	
fromVDEC	A13	CVE2 3.45V	fromVDEC	B13	CVE3 1.275V	
	A12	(CVFM)		B12	3.0V	
to VDEC	A11	EXT/INT 4.74V	to VDEC	B11	DDP 4.79V	DDP [LOW]
fromVDEC	A10	RGB 0.0V	fromVDEC	B10	PB/EE 0.0V	EE [LOW]
fromVDEC	A 9	REFC 6.8mV	fromVDEC	B 9	RF A/B 0.0V	A [LOW]
	A 8	GND		B 8	PB RF A -12mV	0.5~1.0Vp-p
	A 7	CVSU 0.05V	from	B 7		
	A 6	GND	HEAD	B 6	PB RF B -12mV	0.5~1.0Vp-p
	A 5	CVSY 2.65V		B 5		
	A 4	GND	fromVAR2	B 4	EE RFV -0.3mV	1.0~1.5Vp-p
	A 3	CVHU 0.05V		B 3	CVSC 38.9mV	
	A 2	(D+5V)		B 2	(D+5V)	
	A 1	GND		B 1	GND	



PB RF EQ&SW	100---199
PB RF AGC	200---299
FM DEM.&DOS	300---399
NONLINNER DEEMPH.	400---499
PB VIDEO OUT MOD.	500---649
CHROMA MOD.	650---699
SYNC GEN	700---799
SC GEN	800---899
POWER SUPPLY	900---999

(CV)	COMPOSITE VIDEO	(CB)	CHROMA (B-Y)	(R-Y)	R-Y SIGNAL
(CVC)	COMPOSITE VIDEO WITH CHARACTER	(CH)	CHROMA	(RCO)	R-Y COMPONENT OUT
(YCS)	Y COMPONENT SYNC	(B-Y)	B-Y SIGNAL	(R)	RF SIGNAL
(CSY)	C SYNC	(BCO)	B-Y COMPONENT OUT	(TC1)	TC1 SIGNAL
(RSC)	REF SC			(SR)	SELECTED SIGNAL (PB or EE)
(CSO)	CS OUT			(CR)	CROMA (R-Y)
(EE)	EE RF				
(SYN)	SYNC SEPARATED FROM REFERENCE INPUT				
(Y)	Y SIGNAL				

☆VOLTAGE MEASURING CONDITION

- In case of EXTERNAL SYNCHRONIZATION (REF IN VIDEO)
- POWER ON, MEASUREMENT OF EE MODE

VAPB assy (2/6) (DWV1126)

SCH-14

IC901 NJM431L
Q901 2SD1961 Q/R
Q902 2SB1306 Q/R
F901, 902 DTF1013
VR901 DCP1020
D901 11ES2

Q101~109 2SC1740S
Q201, 202, 204, 207, 208 2SC1740S
Q110, 206 2SA933S

IC101 TC74HC4053AF
IC102 NJM2058M
IC104, 105 MC1495L
IC201 CDX7500M

VR101 VCP1021
VR102 VCP1021
VR201 VCP1022

RF SIGNAL SWITCHING
PB RF EQ
VOLTAGE CONTROL AMPLIFIER
RF SWITCHING IC
PB RF EQ VOLTAGE CONTROL CONVERSION AMPLIFIER
VOLTAGE CONTROL AMPLIFIER
-4.8V RIPPLE FILTER
+4.8V RIPPLE FILTER
PR RF AGC AMP.
VARIABLE RESISTANCE
AGC AMP

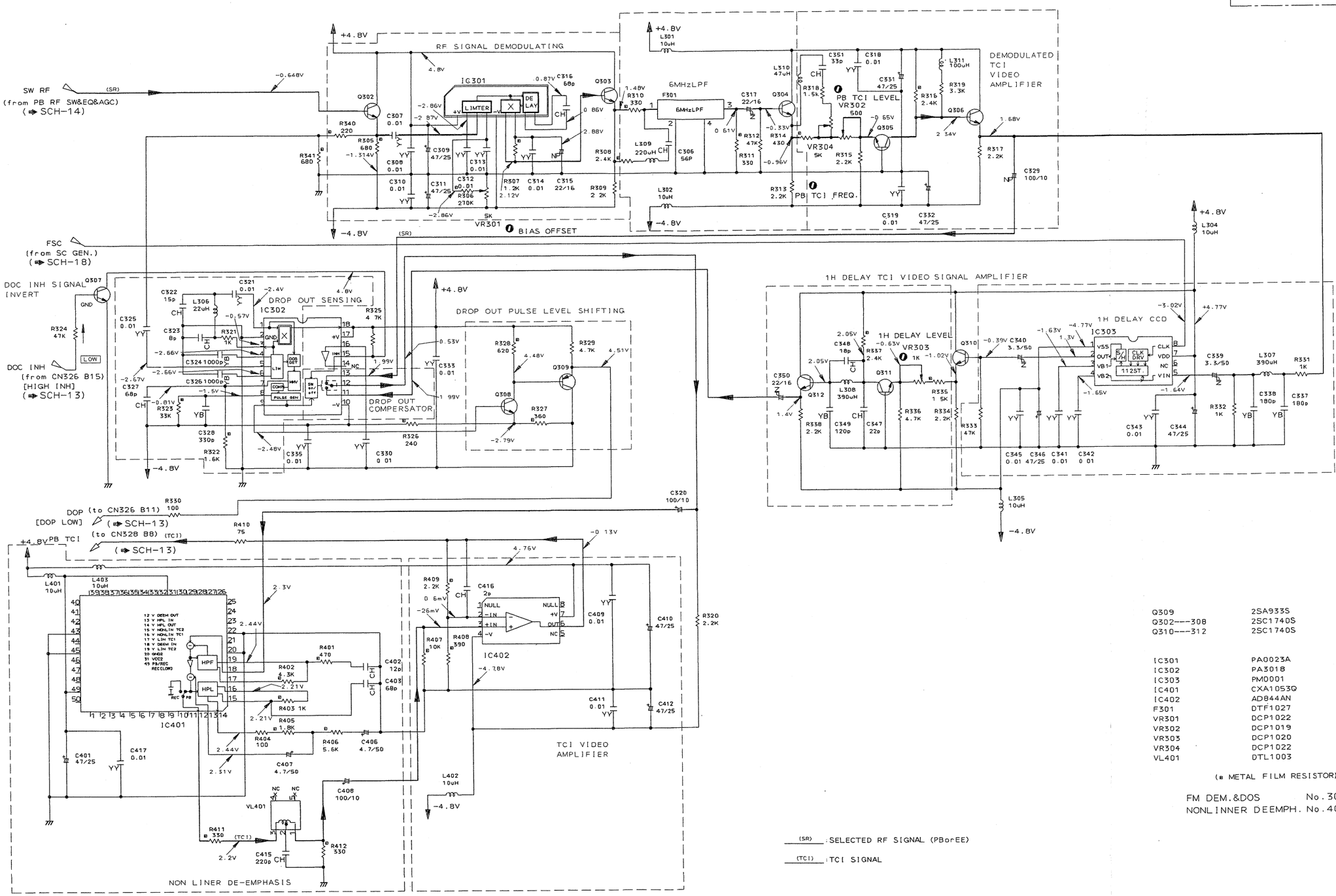
(R) :RF SIGNAL
(SR) :SELECTED RF SIGNAL (PBorEE)
(EE) :EE RF

☆VOLTAGE MEASURING CONDITION
#10000 PB STILL

(⊕ METAL FILM RESISTOR)
RF SW&EQ No.100
RF AGC No.200
POWER SUPLY No.900

SCH-14 VAPB ASSY (2/6)

VAPB assy (3/6) (DWV1126)



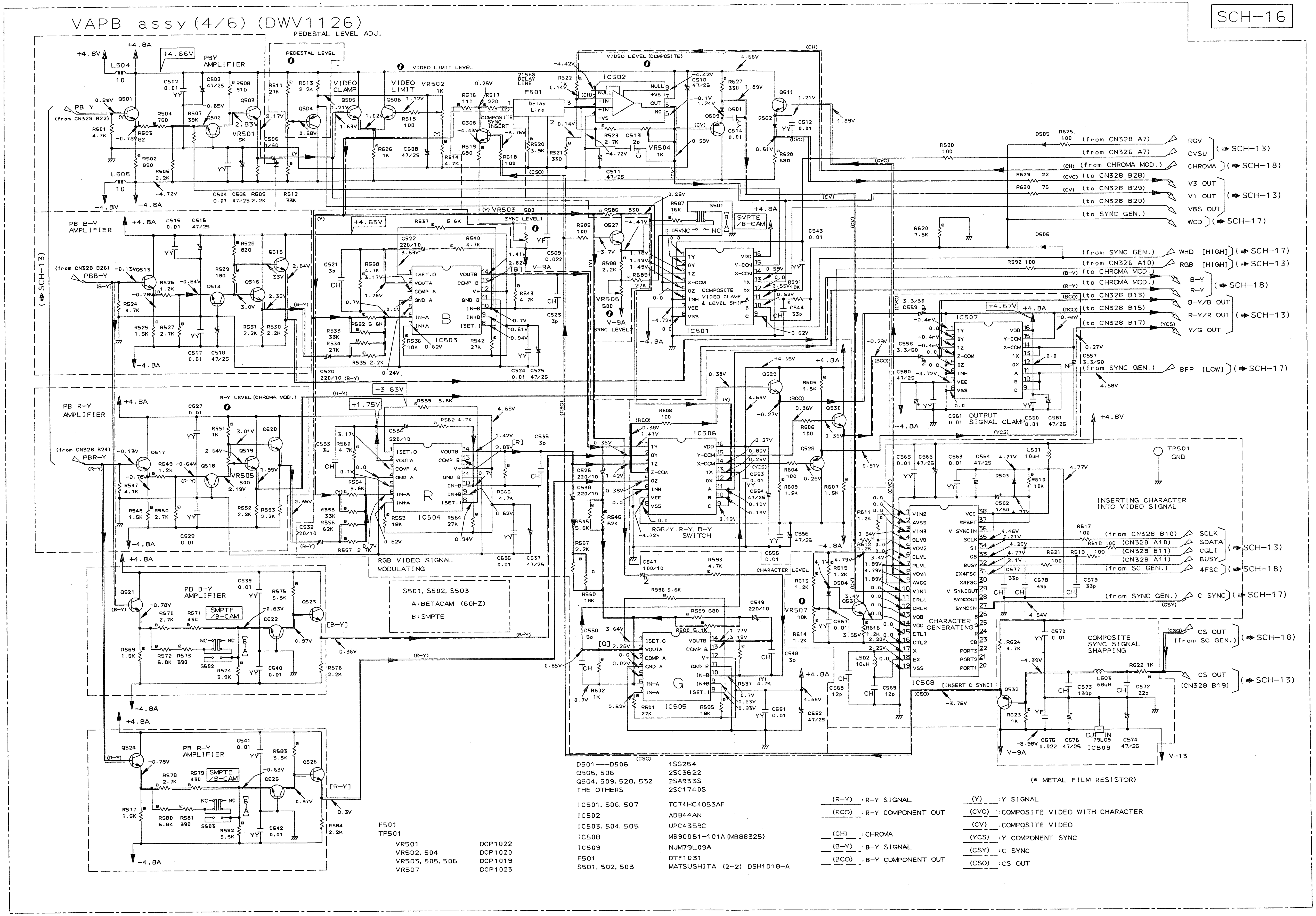
Q309	2SA933S
Q302---308	2SC1740S
Q310---312	2SC1740S
IC301	PA0023A
IC302	PA3018
IC303	PM0001
IC401	CXA1053Q
IC402	AD844AN
F301	DTF1027
VR301	DCP1022
VR302	DCP1019
VR303	DCP1020
VR304	DCP1022
VL401	DTL1003

(■ METAL FILM RESISTOR)

FM DEM.&DOS No.300
NONLINNER DEEMPH. No.400

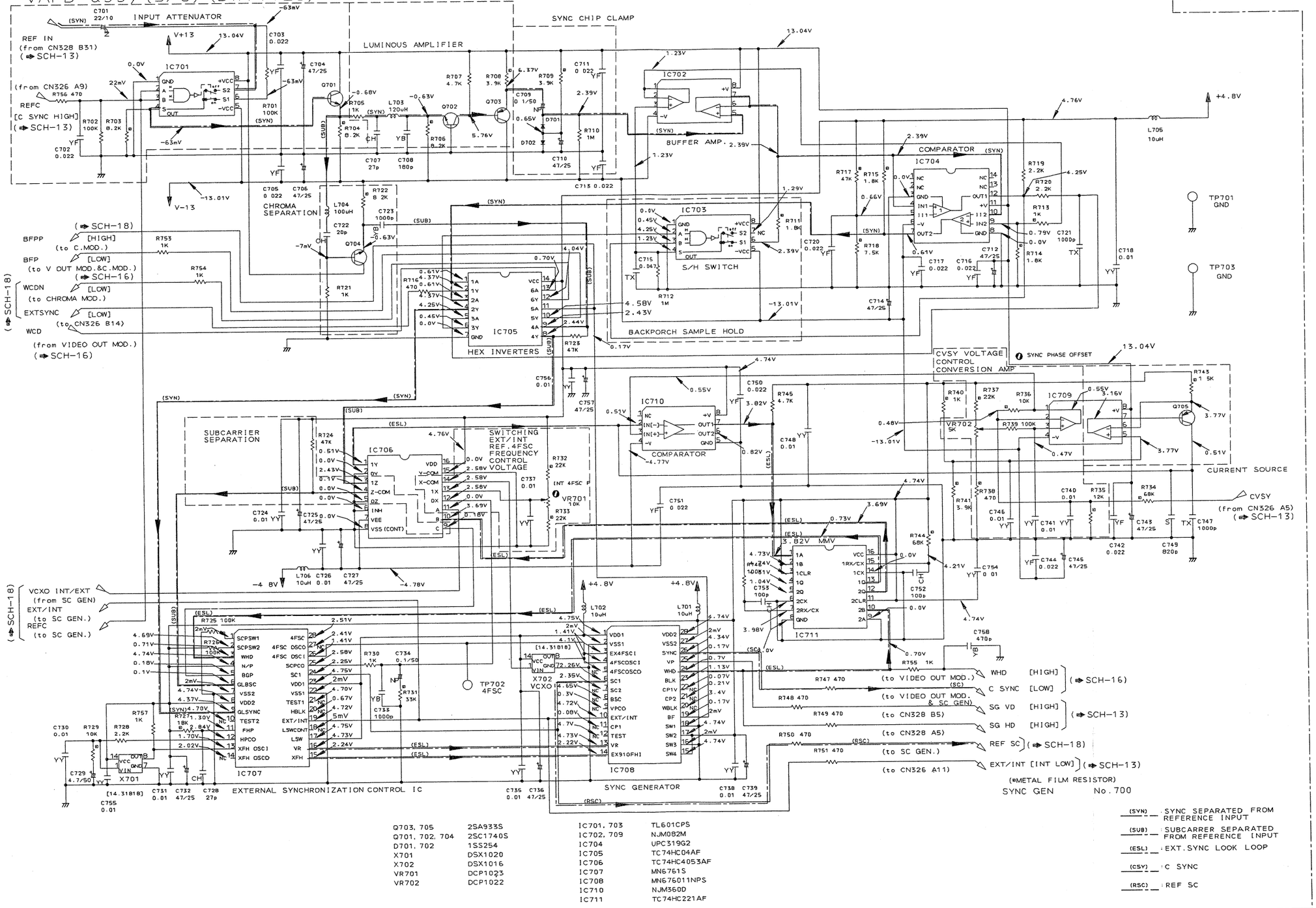
(SR) : SELECTED RF SIGNAL (PBorEE)

(TCI) : TCI SIGNAL


VAPB assy (4/6) (DWV1126)
SCH-16
PEDESTAL LEVEL ADJ.
PBY AMPLIFIER
VIDEO CLAMP
VIDEO LIMIT
VIDEO LIMIT LEVEL
VIDEO LEVEL (COMPOSITE)
PB B-Y AMPLIFIER
PB R-Y AMPLIFIER
R-Y LEVEL (CHROMA MOD.)
RGB VIDEO SIGNAL MODULATING
COMPOSITE VIDEO CLAMP & LEVEL SHIFT
RGB/Y, R-Y, B-Y SWITCH
OUTPUT SIGNAL CLAMP
CHARACTER GENERATING
INSERTING CHARACTER INTO VIDEO SIGNAL
COMPOSITE SYNC SIGNAL SHAPPING
CHARACTER LEVEL
SYNC LEVEL
S501, S502, S503
A: BETACAM (60HZ)
B: SMPTE
(from CN328 A7) RGV
(from CN326 A7) CVSU (⇒SCH-13)
(from CHROMA MOD.) CHROMA (⇒SCH-18)
(to CN328 B28) V3 OUT
(to CN328 B29) V1 OUT
(to CN328 B20) VBS OUT (⇒SCH-13)
(to SYNC GEN.) WCD (⇒SCH-17)
(from SYNC GEN.) WHD [HIGH] (⇒SCH-17)
(from CN326 A10) RGB [HIGH] (⇒SCH-13)
(to CHROMA MOD.) B-Y
(to CHROMA MOD.) R-Y (⇒SCH-18)
(to CN328 B13) B-Y/B OUT
(to CN328 B15) R-Y/R OUT (⇒SCH-13)
(to CN328 B17) Y/G OUT
(from SYNC GEN.) BFP [LOW] (⇒SCH-17)
(from CN328 B10) SCLK
(CN328 A10) SDATA
(CN328 B11) CGLI (⇒SCH-13)
(CN328 A11) BUSY
(from SC GEN.) 4FSC (⇒SCH-18)
(from SYNC GEN.) C SYNC (⇒SCH-17)
CS OUT (from SC GEN.) (⇒SCH-18)
CS OUT (CN328 B19) (⇒SCH-13)
TP501 GND
(* METAL FILM RESISTOR)
D501---D506 1SS254
Q505, 506 2SC3622
Q504, 509, 528, 532 2SA933S
THE OTHERS 2SC1740S
IC501, 506, 507 TC74HC4053AF
IC502 AD844AN
IC503, 504, 505 UPC4359C
IC508 MB90061-101A(MB88325)
IC509 NJM79L09A
F501 DTF1031
S501, 502, 503 MATSUSHITA (2-2) DSH1018-A
F501
TP501
VR501 DCP1022
VR502, 504 DCP1020
VR503, 505, 506 DCP1019
VR507 DCP1023
(R-Y) : R-Y SIGNAL
(RCO) : R-Y COMPONENT OUT
(CH) : CHROMA
(B-Y) : B-Y SIGNAL
(BCO) : B-Y COMPONENT OUT
(Y) : Y SIGNAL
(CVC) : COMPOSITE VIDEO WITH CHARACTER
(CV) : COMPOSITE VIDEO
(YCS) : Y COMPONENT SYNC
(CSY) : C SYNC
(CSO) : CS OUT

SCH-17

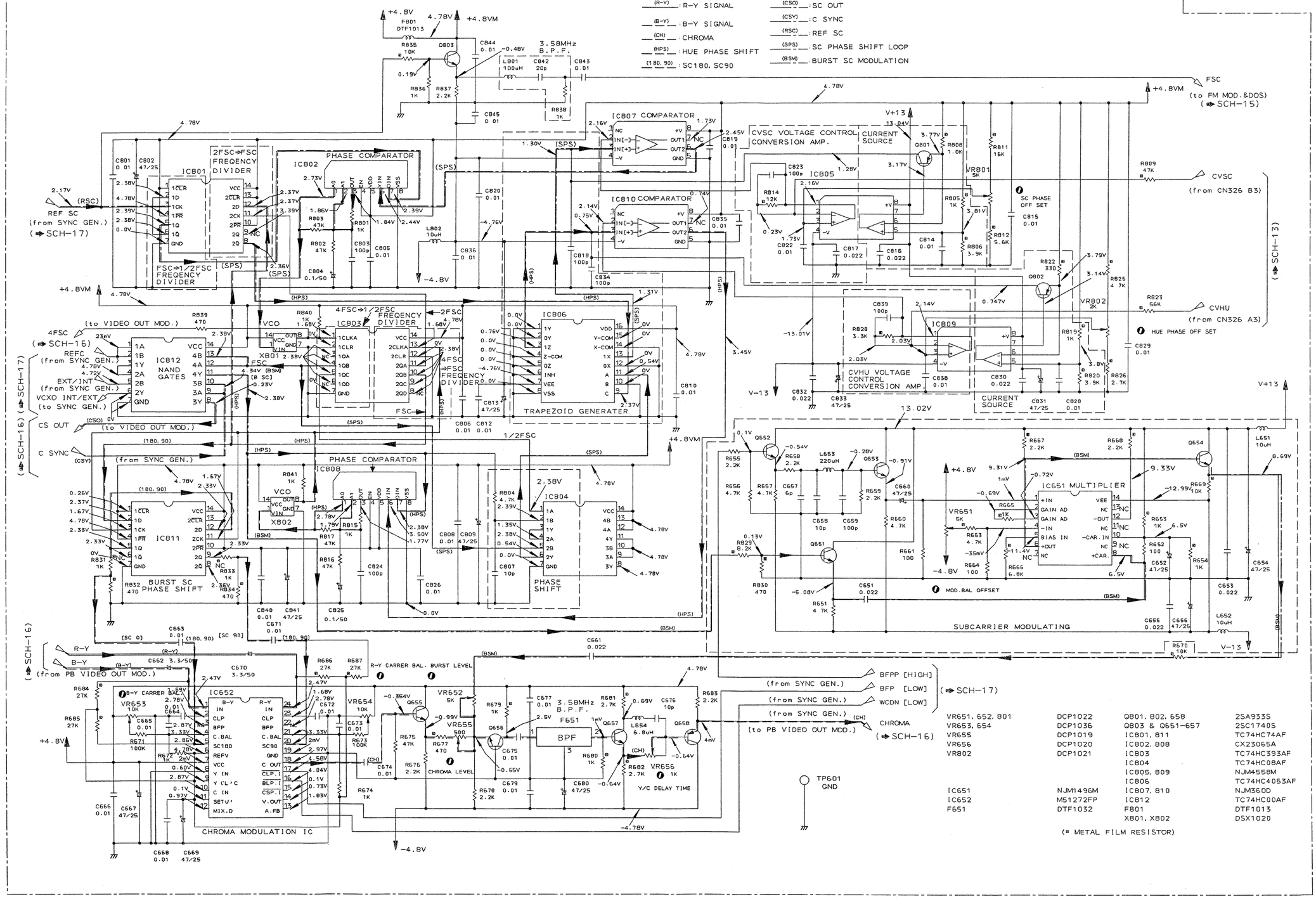
VAPB assy (5/6) (DWV1126)



Q703, 705	2SA933S
Q701, 702, 704	2SC1740S
D701, 702	1SS254
X701	DSX1020
X702	DSX1016
VR701	DCP1023
VR702	DCP1022

IC701, 703	TL601CPS
IC702, 709	NJM082M
IC704	UPC319G2
IC705	TC74HC04AF
IC706	TC74HC4053AF
IC707	MN6761S
IC708	MN676011NPS
IC710	NJM360D
IC711	TC74HC221AF

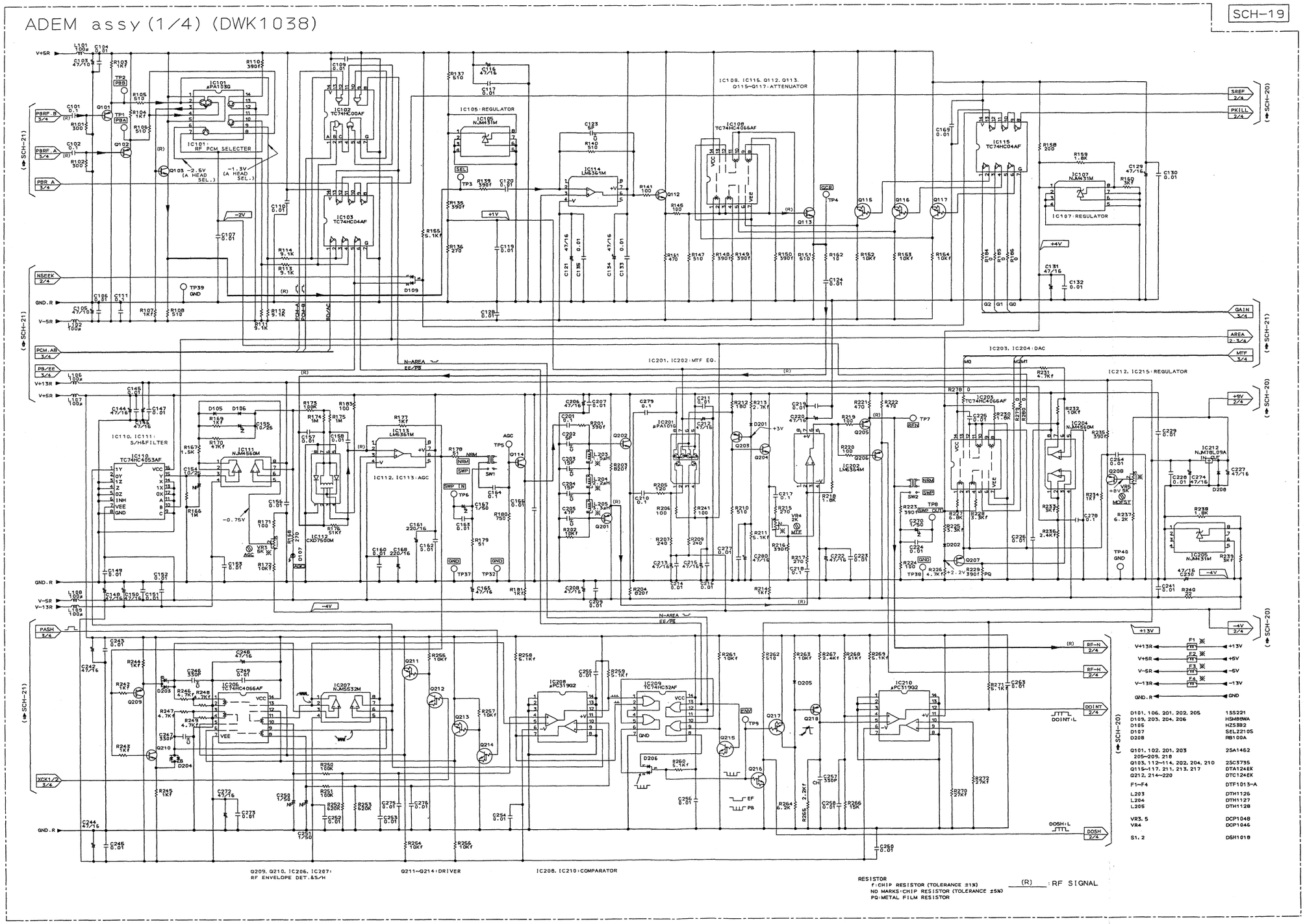
VAPB assy (6/6) (DWV1126)



VR651, 652, 801	DCP1022	Q801, 802, 658	2SA933S
VR653, 654	DCP1036	Q803 & Q651-657	2SC1740S
VR655	DCP1019	IC801, 811	TC74HC74AF
VR656	DCP1020	IC802, 808	CX23065A
VR802	DCP1021	IC803	TC74HC393AF
		IC804	TC74HC08AF
		IC805, 809	NJM4558M
IC651	NJM1496M	IC806	TC74HC4053AF
IC652	M51272FP	IC807, 810	NJM360D
F651	DTF1032	IC812	TC74HC00AF
		F801	DTF1013
		X801, X802	DSX1020

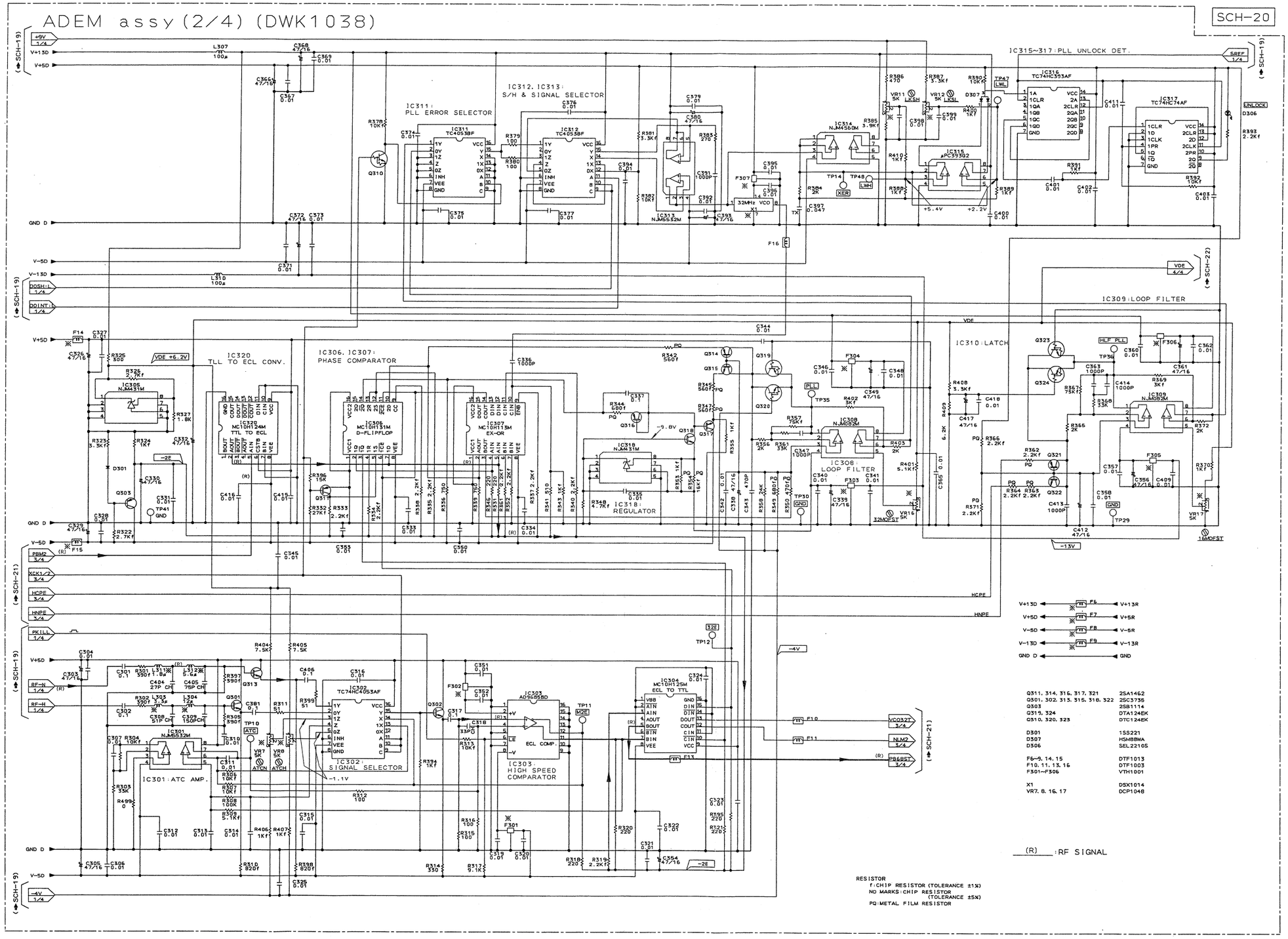
(■ METAL FILM RESISTOR)

4.14 ADEM ASSY



ADEM assy (2/4) (DWK1038)

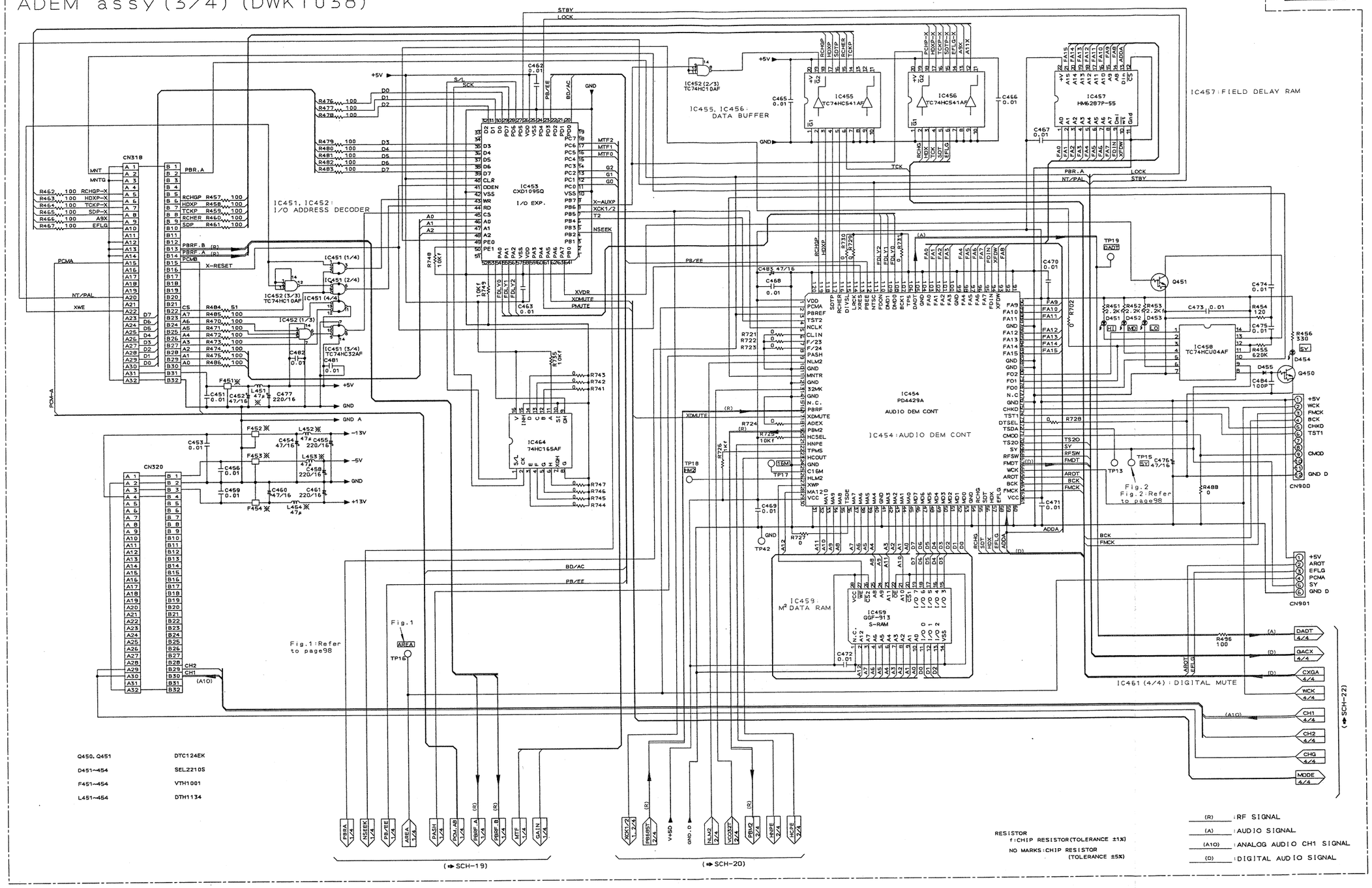
SCH-20



Q311, 314, 316, 317, 321	2SA1462
Q301, 302, 313, 315, 318, 322	2SC3736
Q303	2SB1114
Q319, 324	DTA124EK
Q310, 320, 325	DTC124EK
D301	1SS221
D307	HSMB8WA
D306	SEL2210S
F6~9, 14, 15	DTF1013
F10, 11, 13, 16	DTF1003
F301~F306	VTH1001
X1	DSX1014
VR7, 8, 16, 17	DCP1048

SCH-21

ADEM assy (3/4) (DWK1038)



ADEM assy (4/4) (DWK1038)

SCH-22

IC508, IC509: APERTURE COMPEN. & AMP

IC503: D/A

IC501: PCM AUDIO SIGNAL PROCESSER

IC502: S-RAM

IC510: NOISE REDUCTION

Fig.1 TP16: 16.7ms, 1ms
Fig.2 TP15
Fig.3 TP31: 2.9ms, 3ms
Fig.4 TP21
Fig.5 TP33: 6.2ms, 160µs

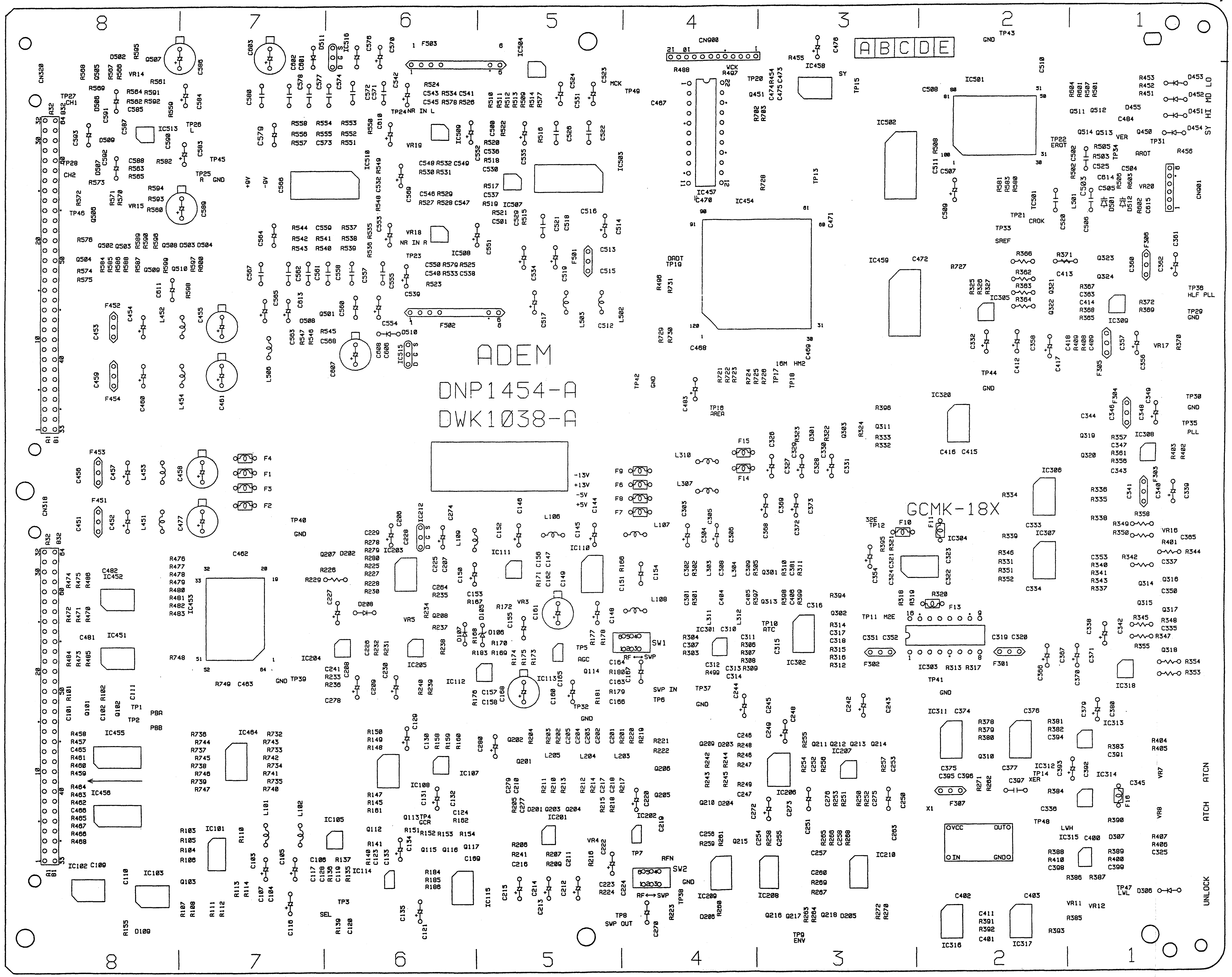
Note)
Both TP15 and TP21 have a pulse of 132.
This has been simplified in the diagram.
Both signals have a TTL level of +5V / 0V

Q503	2SA1462
Q504, 510	2SC3735
Q501	2SD1614
Q505-508	2SK508
Q509	DTA124EK
Q502, 511-514	DTC124EK
D502-504, 506-509	1SS221
D501, 512	1T33
D510, 511	RB100A
FS02, 503	DTF1019
FS01	VTH1001
L501	DTH1125
TC501	DCM1008
VR14, 15, 20	DCP1047
VR18, 19	DCP1048

(A) : AUDIO SIGNAL
(A10) : ANALOG AUDIO CH1 SIGNAL
(D) : DIGITAL AUDIO SIGNAL

RESISTOR
f: CHIP RESISTOR (TOLERANCE ±1%)
NO MARKS: CHIP RESISTOR (TOLERANCE ±5%)

ADEM assy



VR14 Q507 Q505 IC516 IC458 Q451 IC501 Q511–Q514

VR19 IC513 IC509 IC510 IC503 IC457 IC502 Q450

VR20

VR15 Q506 Q502 Q503 Q508 Q504 Q509 Q510 IC507 IC508 IC454

VR18 Q501 IC459 Q323 Q324 Q321 Q322 IC309 IC305

VR17 IC515

IC320

IC305 Q303 Q311 Q319 IC308 Q320

IC306

VR16 IC212 Q207 IC203 IC111 IC110 Q301 IC307 IC304

IC452 Q314–Q318

VR3 IC453 Q208 Q313 Q302

VR5 IC451 IC204 IC205 IC113 IC301 IC303

Q114 IC112 IC302

Q101 Q102 IC318

Q209 Q211–Q214 IC311 IC313

IC455 IC464 Q202 IC107 Q201 IC108 IC207 Q206 Q205 IC312 Q310

VR7 IC456 Q203 Q113 IC206 IC314

VR8 VR4 IC101 Q112 Q204 Q210 IC202 Q215

IC105 IC201 Q115–Q117 IC114 IC115 IC210 IC209 IC208 IC315

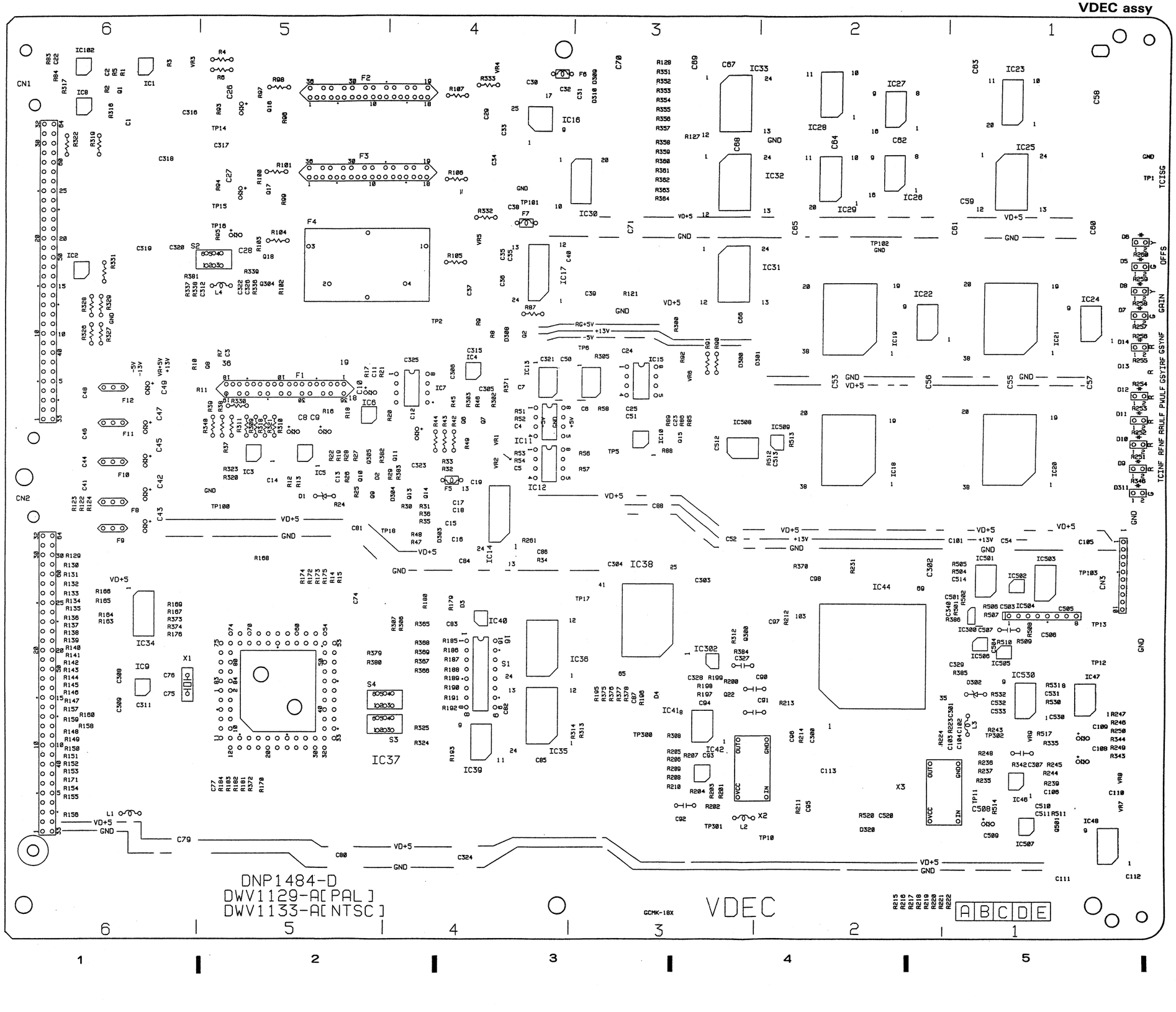
VR11 VR12 Q103 IC102 IC103 Q216–Q218 IC316 IC317

A B C D

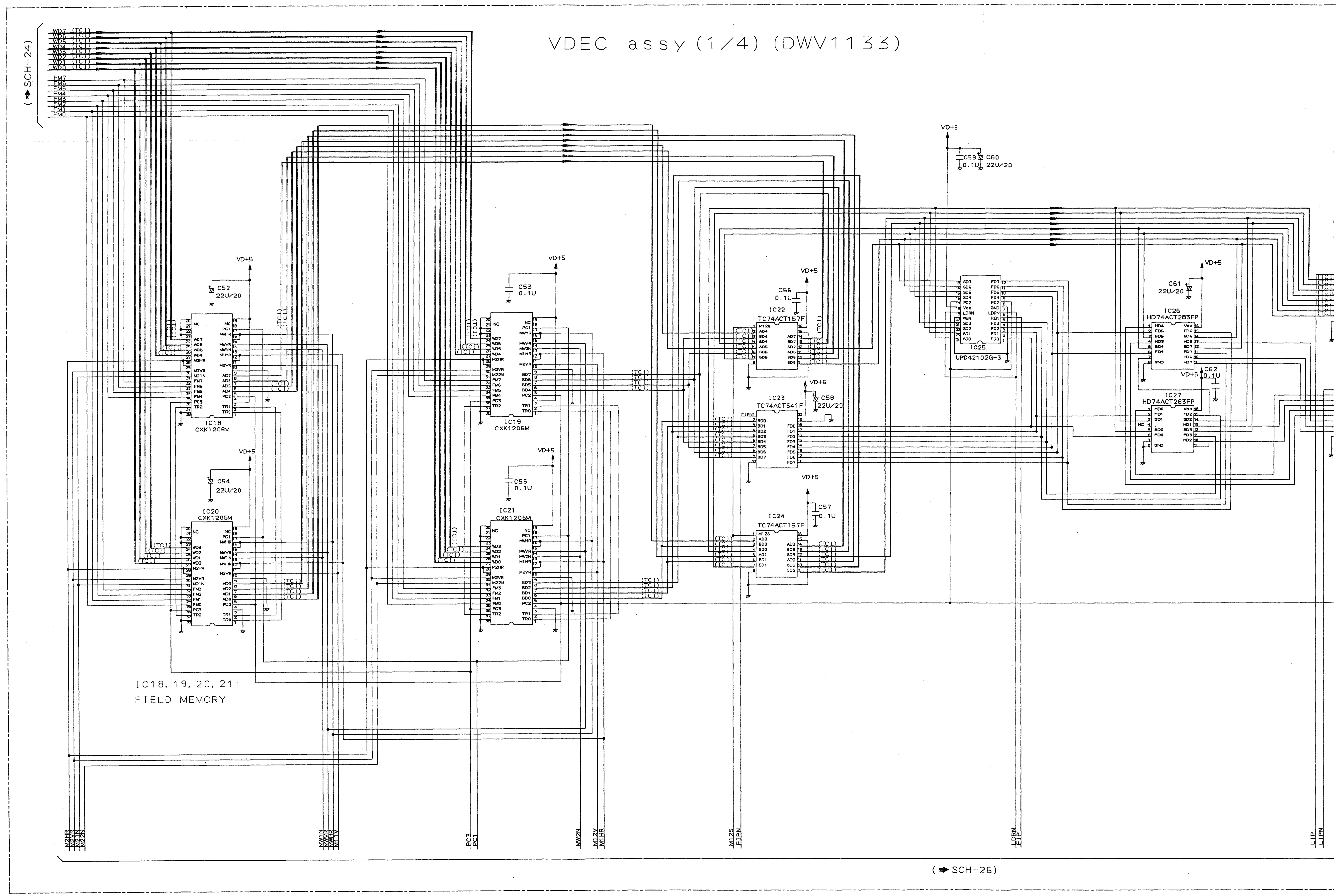
1 2 3 4 5 6

4.15 VDEC ASSY

VDEC assy



IC102			
IC1			
Q1		IC33	IC23
IC8		IC28	IC27
Q16	IC16		
		IC32	IC25
	IC30	IC29	IC26
Q17			
IC2			
Q18	IC17	IC31	
Q304		IC19	IC21
			IC24
			IC22
Q8	Q2		
	IC4		
	IC13	IC15	
	IC7	IC509	
		IC508	
	IC6	IC18	IC20
	Q6		
	Q7	Q15	
	IC11	IC10	
IC3	IC5		
	Q11		
	Q10		
	IC12		
	Q13		
	Q14		
	Q9		
	IC14		
		IC501	
		IC503	
IC38		IC502	
		IC300	
		IC504	
IC34	Q300	IC506	
IC36			
IC40	IC302	IC505	
IC9			
		IC530	
IC37	Q22	IC47	
	IC41		
IC35			
IC39			
	IC42		
		IC46	
		IC507	
		Q501	
		IC48	



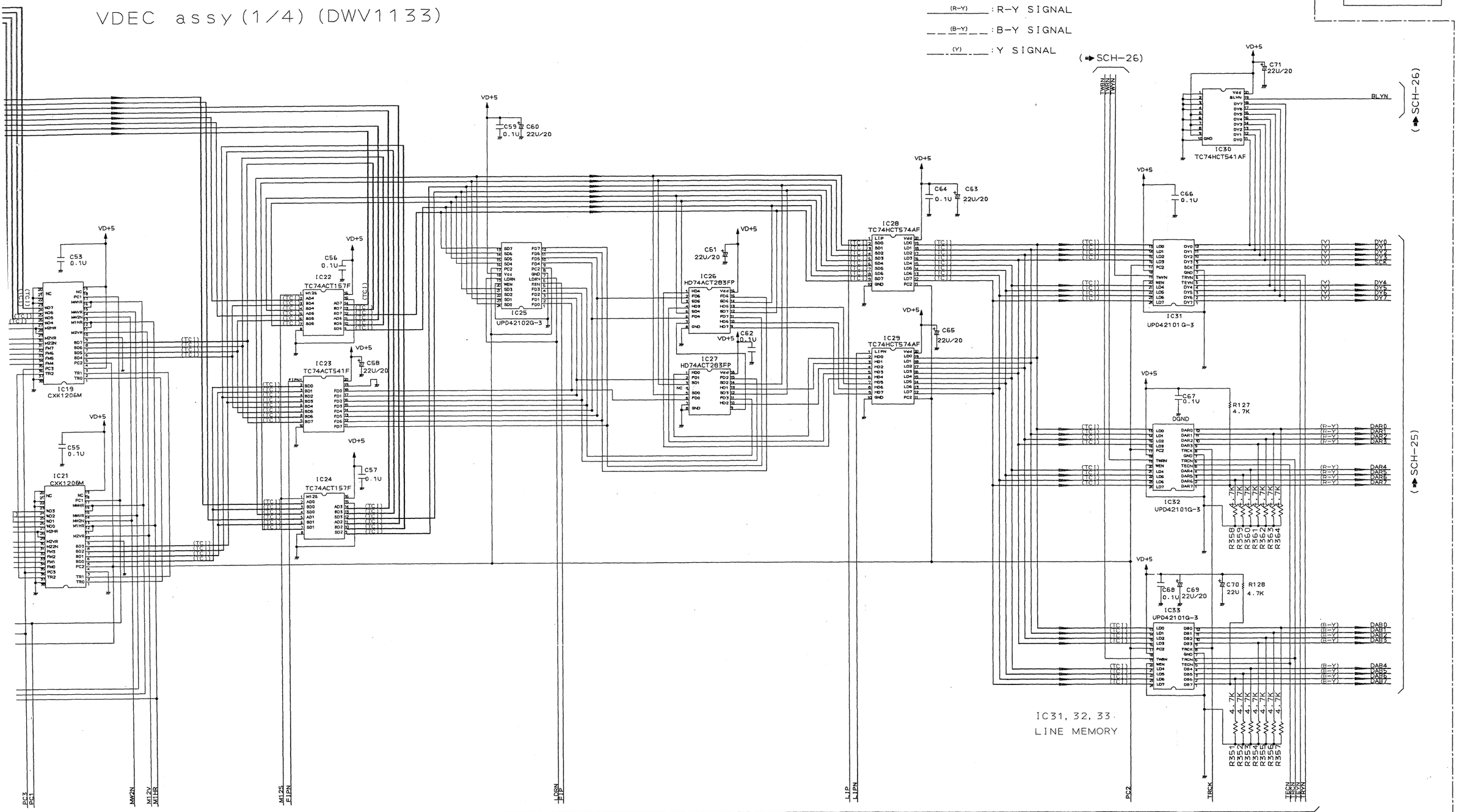
SCH−23

VDEC ASSY (1/4)

SCH-23

VDEC assy (1/4) (DWV1133)

(TC1) : TCI SIGNAL
(R-Y) : R-Y SIGNAL
(B-Y) : B-Y SIGNAL
(Y) : Y SIGNAL



IC31, 32, 33
LINE MEMORY

VDEC assy (2/4) (DWV1133)

IC34 :12ch D/A CONVERTER

IC34
MB88346BPF

IC35 : LINE MEMORY

IC35
UPD42102G-3

IC36 : LINE MEMORY

IC36
UPD42102G-3

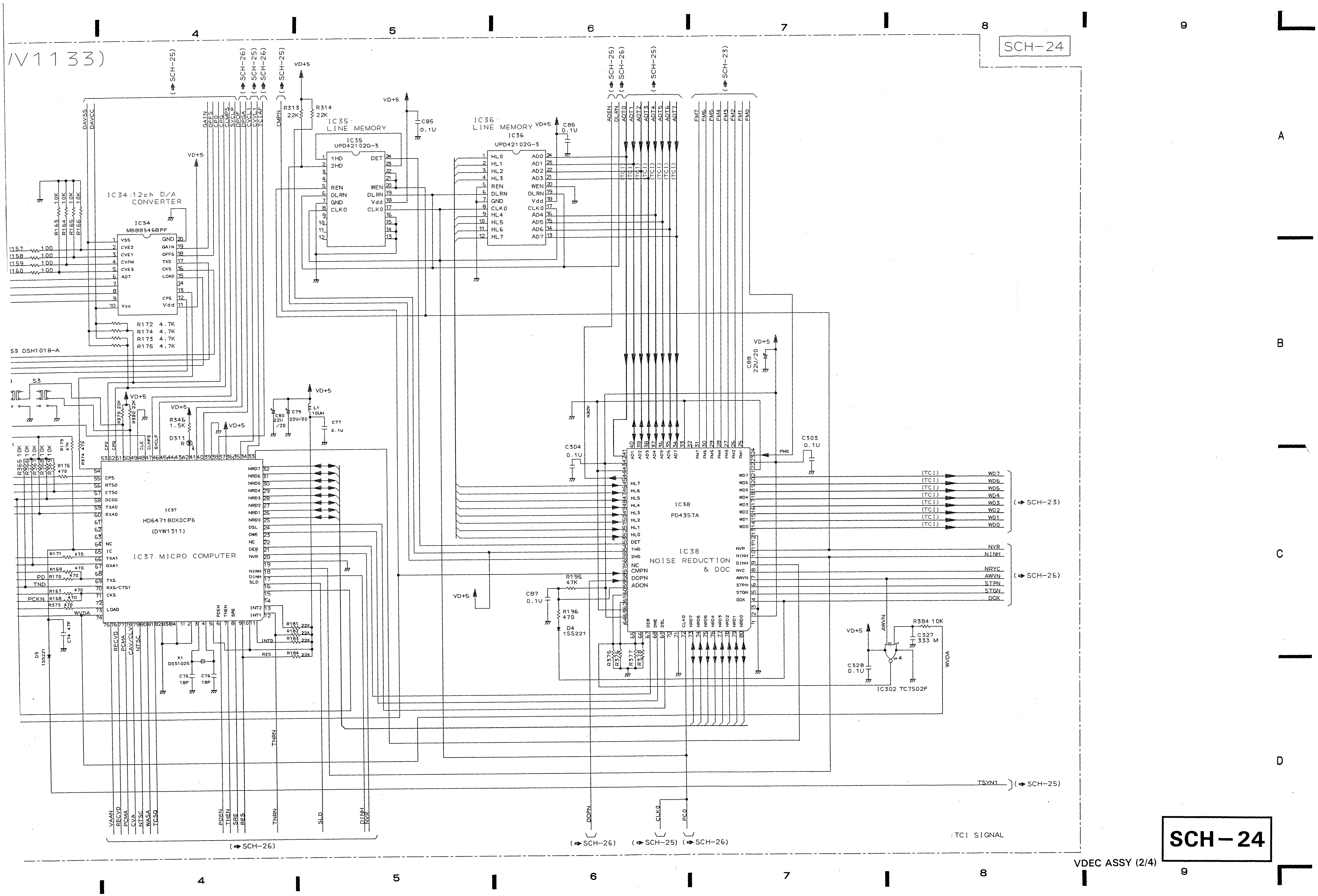
IC37
HD64718OX0CP6
(DYW1311)

IC37 MICRO COMPUTER

IC38
PD4357A

IC38 : NOISE REDUCTION & DOC

S4, S3 DSH1018-A

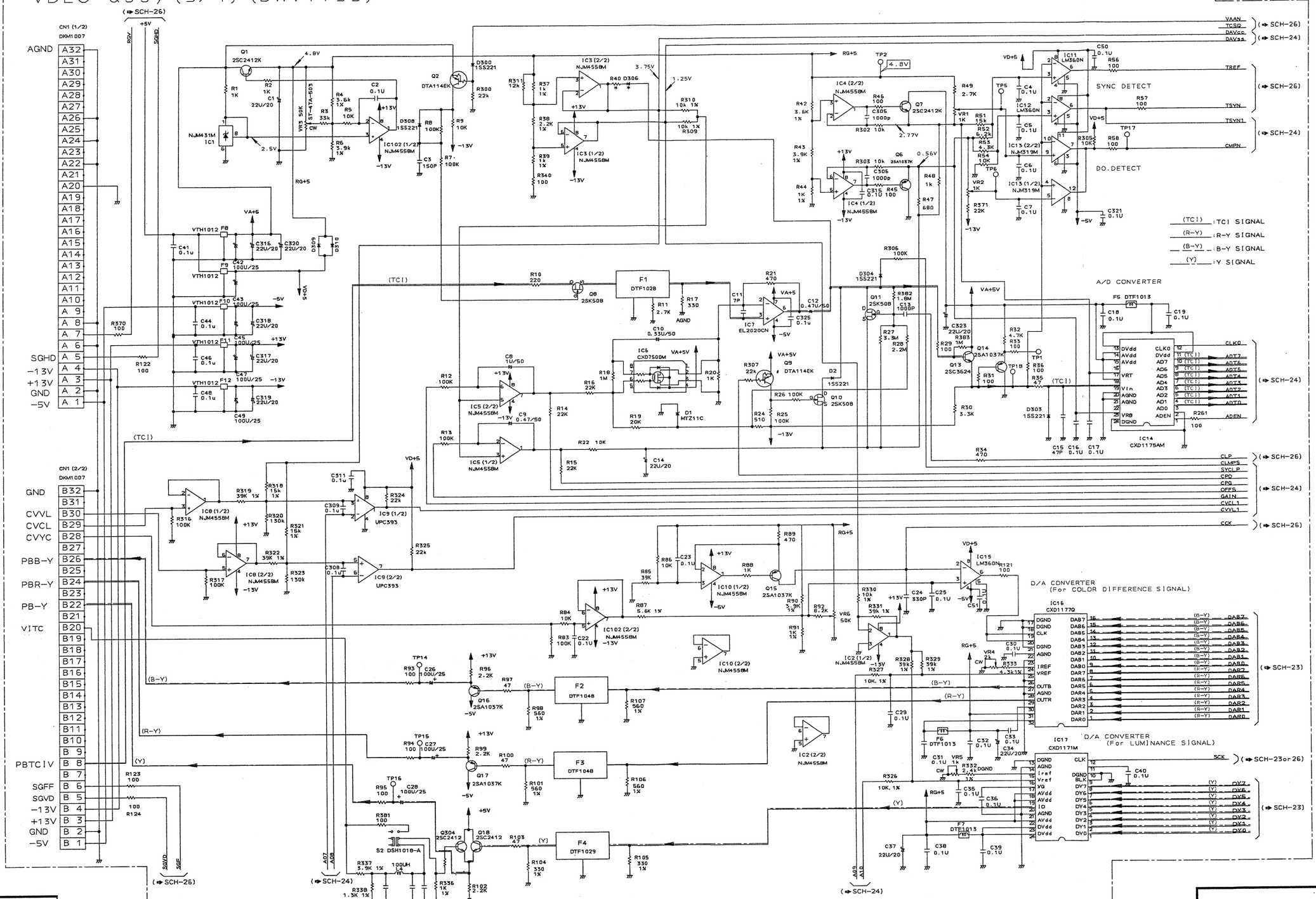


SCH-24

VDEC ASSY (2/4)

SCH-25

VDEC assy (3/4) (DWV1133)



VDEC assy (4/4) (DWV1133)

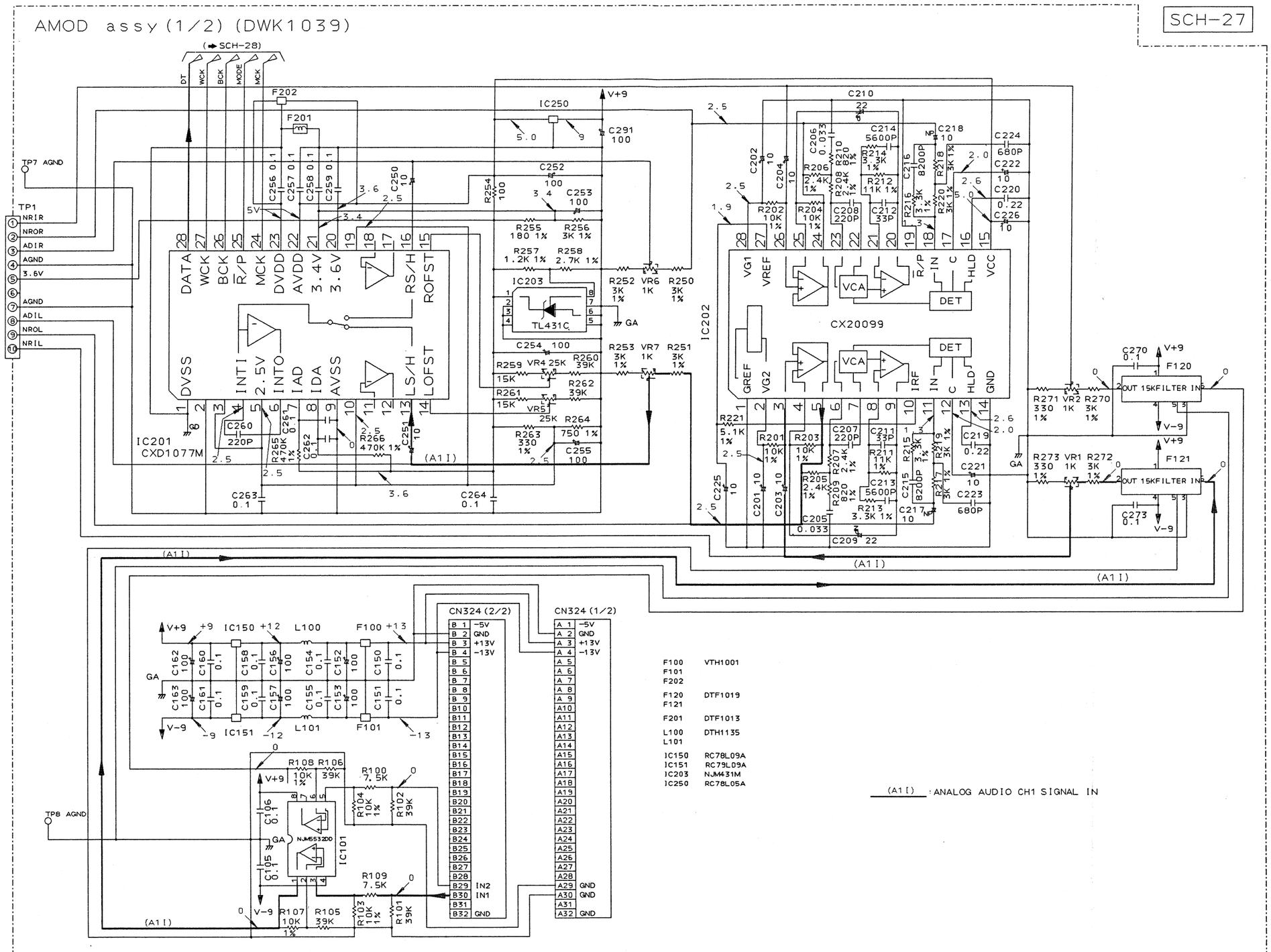
SCH-26

IC44 : MEMORY CONTROL

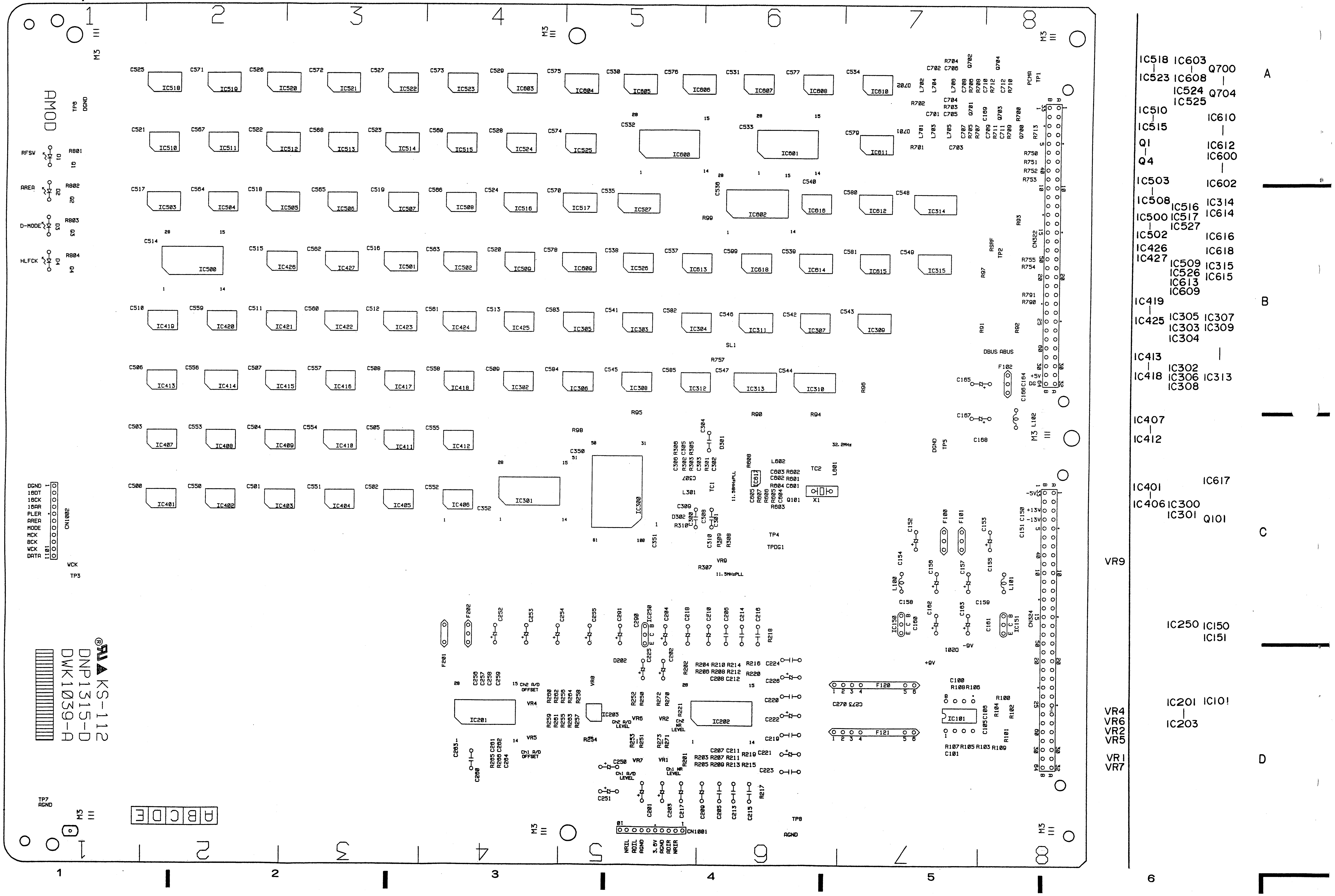
IC300 : TC7W04F
IC501 : TC74HC74AF
IC502 : TC7S08F
IC503 : TC74HC161AF
IC504 : CX23065A
IC505 : TC7S66F
IC506 : TC7S04F
IC507 : NJM2903M
IC508 : TC74HCT04AF
IC509 : TC7S04F
IC530 : TC74HC221AF

*: NOT MOUNT

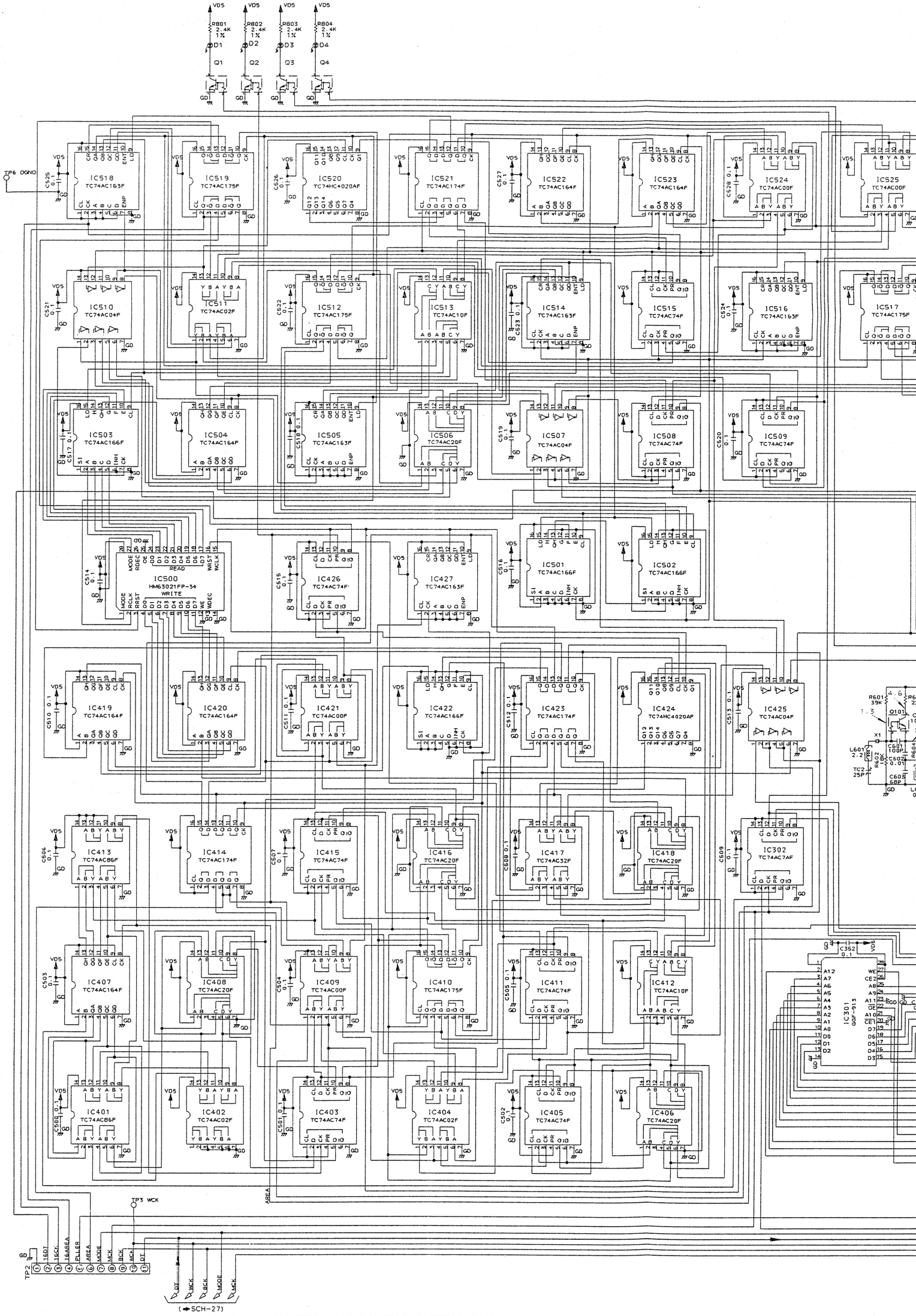
4.16 AMOD ASSY



AMOD assy


AMOD
KS-112
DNP1315-D
DWK1039-A
IC518 IC603 Q700
IC523 IC608 Q704
IC524
IC525
IC510 IC610
IC515
Q1 IC612
Q4 IC600
IC503 IC602
IC508 IC516 IC314
IC500 IC517 IC614
IC502 IC527 IC616
IC426 IC618
IC427 IC509 IC315
IC526 IC615
IC613
IC609
IC419
IC425 IC305 IC307
IC303 IC309
IC304
IC413
IC418 IC302 IC313
IC306
IC308
IC407
IC412
IC401 IC617
IC406 IC300
IC301 Q101
VR9
IC250 IC150
IC151
IC201 IC101
IC203
VR4
VR6
VR2
VR5
VR1
VR7

AMOD assy (2/2) (DWK1039)



SCH-28

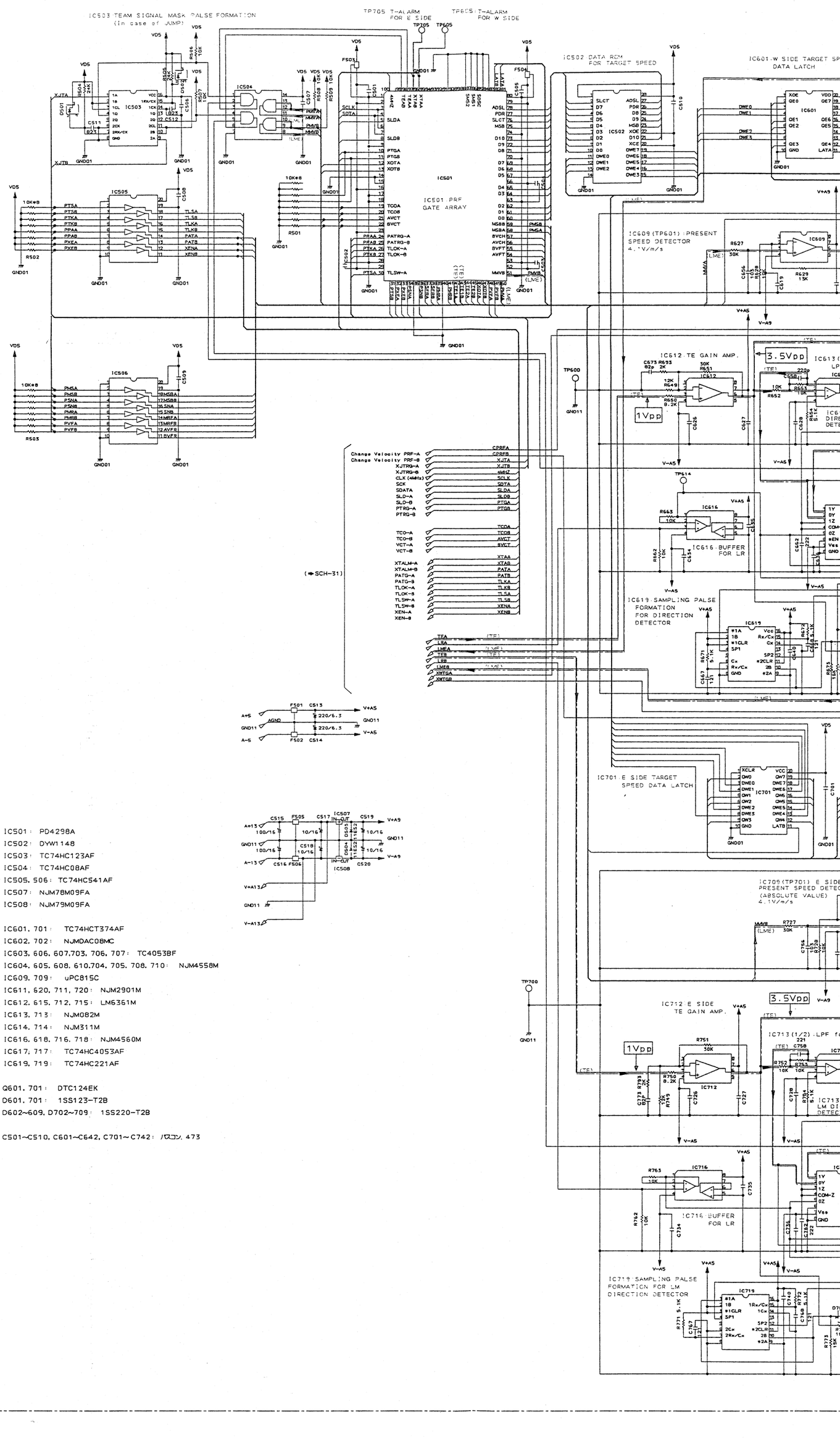
AMOD ASSY (2/2)

L102	DTH1135	
L301	DTH1125	
L601	DTH1127	
L602	DTH1132	
L701	DTH1131	
L702		
L703	DTH1133	
L704		
L705	DTH1129	
L706		
D1, D2	SEL2210S	
D3, D4		

Q1, Q2, Q3, Q4	DTC124EK
Q101	2SC3735
Q700	2SC1623 L5/L6
Q701	
Q702	
Q703	
Q704	
F102	VTH1001

(RR) REC RF

MPU (1/3) assy (DWG1344)



IC501: PD4298A
IC502: DYW1148
IC503: TC74HC123AF
IC504: TC74HC08AF
IC505, 506: TC74HC541AF
IC507: NJM78M09FA
IC508: NJM79M09FA

IC601, 701: TC74HCT374AF
IC602, 702: NJMDAC08MC
IC603, 606, 607, 703, 706, 707: TC4053BF
IC604, 605, 608, 610, 704, 705, 708, 710: NJM4558M
IC609, 709: uPC815C
IC611, 620, 711, 720: NJM2901M
IC612, 615, 712, 715: LM6361M
IC613, 713: NJM082M
IC614, 714: NJM311M
IC616, 618, 716, 718: NJM4560M
IC617, 717: TC74HC4053AF
IC619, 719: TC74HC221AF

Q601, 701: DTC124EK
D601, 701: 1SS123-T2B
D602~609, D702~709: 1SS220-T2B

C501~C510, C601~C642, C701~C742: パスコン, 473

IC604 W SIDE CONSTANT SPEED SIGNAL FORMATION

IC602 W SIDE TARGET SPEED DATA D/A CONVERTER

TP602 TARGET SPEED
TP603 PRESENT SPEED
FWD ⊖ REV ⊕ W SIDE

IC608 W SIDE LME FORMATION

CONSTANT ACCELERATING 0.8Vpp

IC610

IC611 (1/4) VCH FORMATION
IC611 (2/4) VFST FORMATION

IC613 (1/2) : LPF fc=70kHz

IC613 (2/2) : LM DIRECTION DETECTOR

IC614 : BINARY CODED TE FOR TRA CKCOUNT

IC615 : W SIDE BPF (8.7k~1M)

Q601 : SE-F/R FORMATION

IC618 (1/2) : PHASE LEAD CIRCUIT

IC618 (2/2) : SECONDARY LPF (fc=15k)

IC704 E SIDE CONSTANT SPEED SIGNAL FORMATION

IC620 (1/4) BINARY CODED TE FOR LR SAMPLING
IC620 (2/4) BINARY CODED TE FOR TRACKING LEAD-IN
IC620 (3/4) TEAM FORMATION
IC620 (4/4) ONTR FORMATION FOR W SIDE

TP702 TARGET SPEED
TP703 PRESENT SPEED
FWD ⊖ REV ⊕ E SIDE

IC702 E SIDE DAC

IC708 E SIDE LME FORMATION

IC709 E SIDE DETECTOR

IC710

IC711 (1/4) VCH FORMATION FOR E SIDE
IC711 (2/4) VFST FORMATION FOR E SIDE

IC713 (1/2) : LPF fc=70kHz

IC713 (2/2) : LM DIRECTION DETECTOR

IC714 : BINARY CODED TE FOR TRACK COUNT

IC715 : E SIDE BPF (8.7k~1M)

Q701 : SE-F/R FORMATION

IC718 (1/2) : PHASE LEAD CIRCUIT

IC718 (2/2) : SECONDARY LPF (fc=15k)

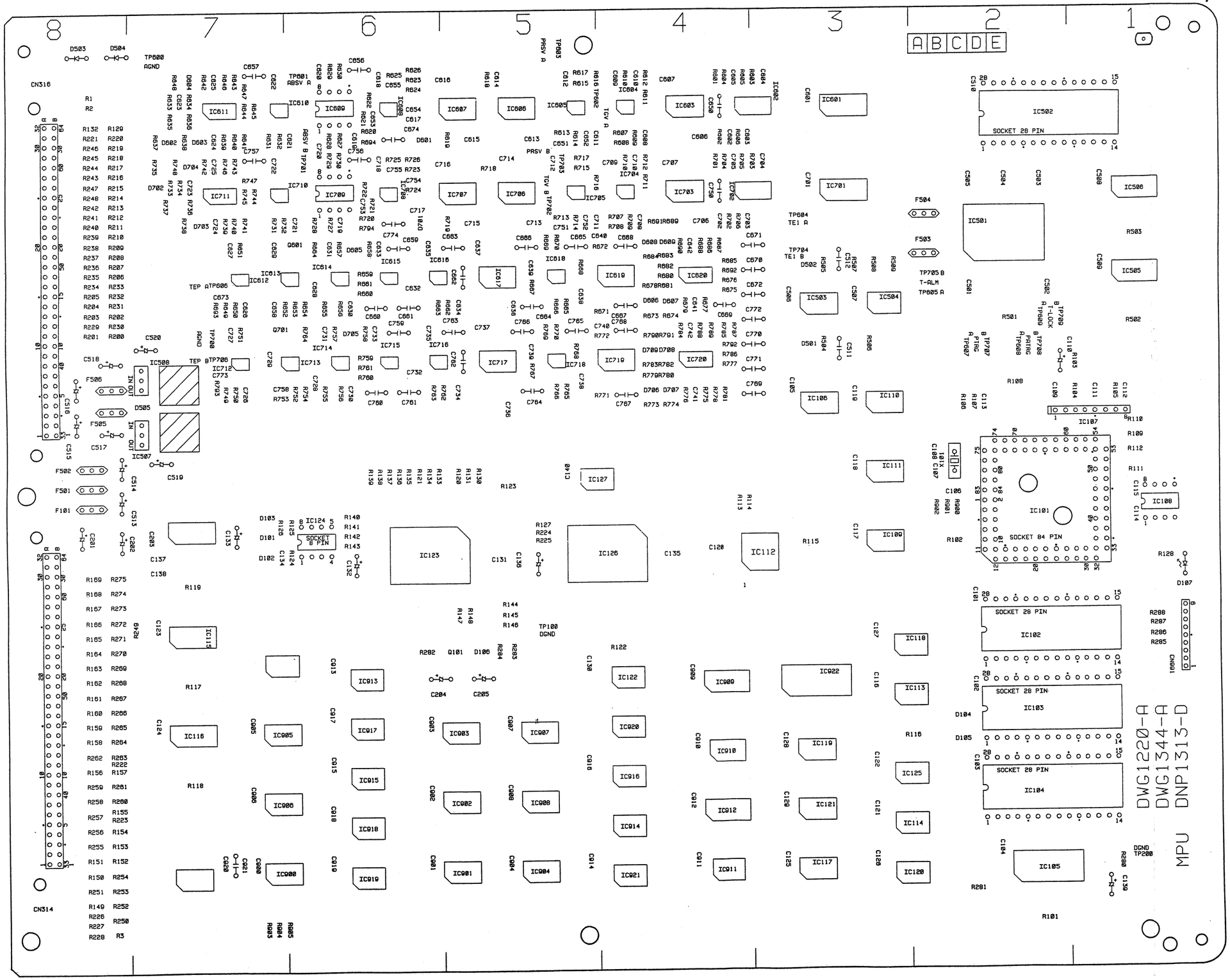
IC720 (1/4) BINARY CODED TE FOR LR SAMPLING
IC720 (2/4) BINARY CODED TE FOR TRACKING LEAD-IN
IC720 (3/4) TEAM FORMATION FOR E SIDE
IC720 (4/4) ONTR FORMATION FOR E SIDE

• ABBREVIATED WORDS
LME : Linior Motor Error
VCE : Velocity ChangE
VFST : Velocity FaST
TEAM : Tracking Error AlarM
ONTR ON TRack
W SIDE : Write head SIDE
E SIDE : Erase head SIDE

(TE) : TRACKING ERROR SIGNAL
(LME) : LINER MOTOR DRIVE SIGNAL

PCB－16

MPU assy



IC611 IC610 — IC605 IC609 — IC601 IC604 — IC502 — A

IC711 IC710 — IC705 IC709 — IC701 IC704 — IC506 IC501

Q601 IC612 IC613 — IC614 IC619 — IC620 IC503 IC504 — IC505

IC712 Q701 IC713 IC508 — IC714 IC719 — IC720 IC106 IC110 — B

IC507 — IC107

IC111 — IC127

IC108 — IC128 — IC126 IC124 IC123 — IC109

IC112 — IC101

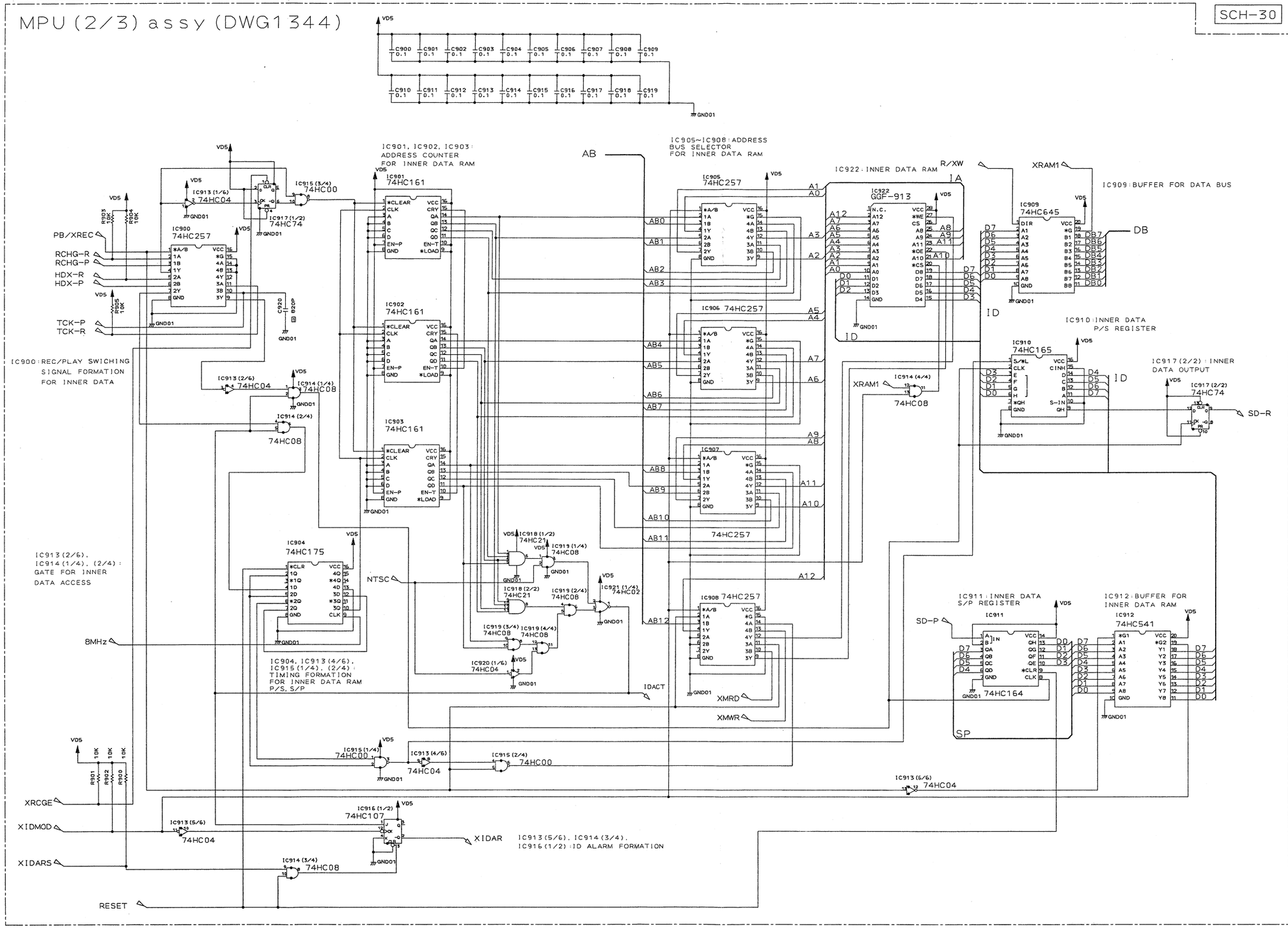
IC102 — IC115 — Q101 — IC118 — C

IC913 — IC122 IC909 IC922 — IC103 — IC116 IC905 — IC917 IC903 IC907 — IC920 IC910 IC119 IC125

IC915 IC902 — IC916 — IC104 — IC906 — IC908 IC912 IC121 — IC918 — IC114 IC914

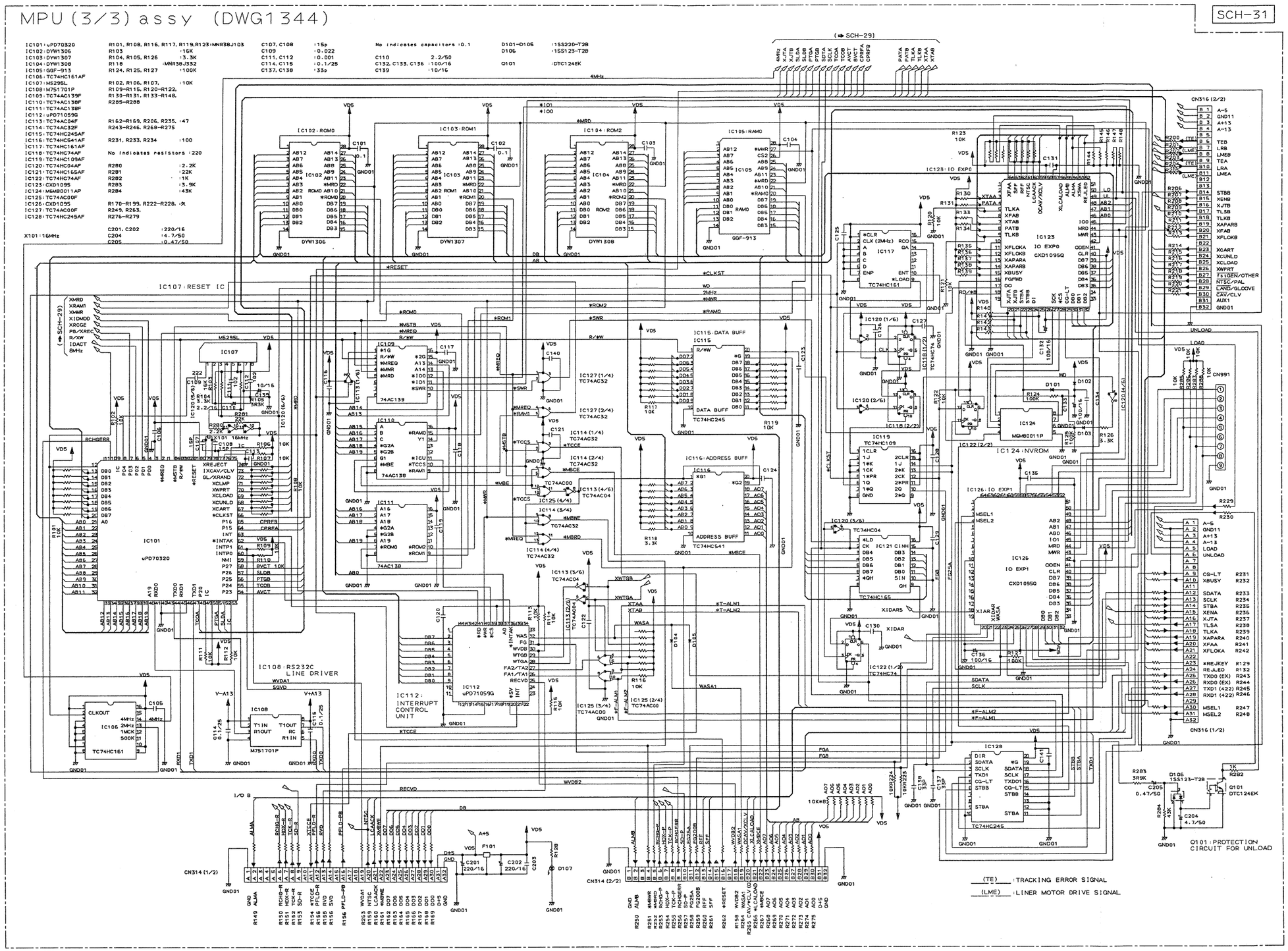
IC900 — IC105 — IC919 IC901 IC904 — IC921 IC911 IC117 IC120 — D

MPU (2/3) assy (DWG1344)



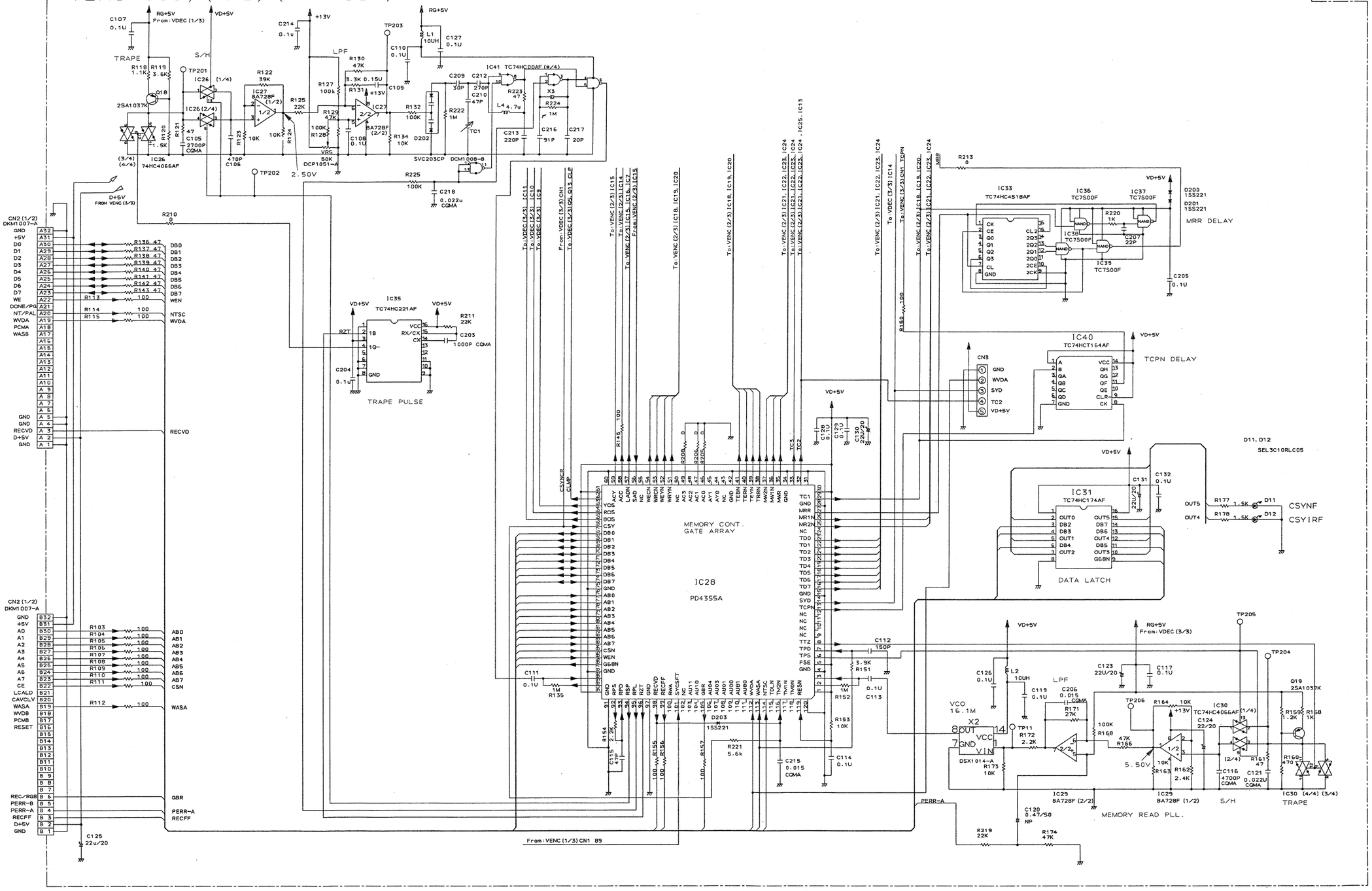
MPU (3/3) assy (DWG1344)

SCH-31



SCH-32

VENC assy (1/3) (DWV1084)



VENC assy (2/3) (DWV1084)

To: VENC (3/3) IC13 (RTV)

From: VENC (3/3) IC5 (RY)

From: VENC (3/3) IC7 (RRY)

From: VENC (3/3) IC8 (RBY)

VD+5

C82 0.1U

C83 22U/20

IC20
UPD42505C-50

Y LINE MEMORY

IC17
HD74ACT166FP
Y DATA LATCH

C81 0.1U

IC19
UPD42101G-3

R-Y LINE MEMORY

IC16
HD74ACT166FP
R-Y DATA LATCH

C80 0.1U

IC18
UPD42101G-3

B-Y LINE MEMORY

IC15
HD74ACT166FP
B-Y DATA LATCH

C79 0.1U

R96 47

D6 1SS221

IC32 (1/4) TC74HC02AF

IC32 (2/4) TC74HC02AF

R97 100

2K VR3 DCP1047-A

C78 150P

VR3 B-Y DELAY ADJ.

R98 47

D7 1SS221

IC32 (3/4) TC74HC02AF

IC32 (4/4) TC74HC02AF

R99 100

2K VR4 DCP1047-A

C77 150P

VR4 R-Y DELAY ADJ.

CLOCK DELAY CIRCUIT

ACY

From: VENC (1/3) IC28

ACC

SAD

To: VENC (1/3) IC28

SAMPLING DATA FOR OFFSET

LADN

From: VENC (1/3) IC28

From: VENC (1/3) IC28

From: VENC (1/3) IC28

(RTV)
(RRV)
(RBY)
(RY)

SCH-33

VENC ASSY (2/3)

SCH-33

(RTV)

(RTV)

VD+5 VD+5

C101 0.1U

C84 0.1U

C85 22U/20

C86 0.1U

IC22

FIELD MEMORY (4bit)

CXK1206M

C94 22U/20

C97 0.1U

C95 0.1U

C89 22U/20

C93 0.1U

IC21

CXK1206M

FIELD MEMORY (4bit)

C102 0.1U

C103 0.1U

C91 0.1U

C87 0.1U

IC24

FIELD MEMORY (4bit)

CXK1206M

C100 22U/20

C98 0.1U

C99 0.1U

C96 0.1U

C90 22U/20

C92 0.1U

IC23

CXK1206M

FIELD MEMORY (4bit)

(RTV)

CN4

D0 D1 D2 D3 D4 D5 D6 D7

C88 0.1U

VD+5V

IC25 TC74HCT574AF

DATA LATCH

From: VENC (1/3) IC28

TC1 From: VENC (1/3) IC28

From: VENC (1/3) IC28

TC3 From: VENC (1/3) IC28

MRR

TC2 From: VENC (1/3) IC28

From: VENC (1/3) IC28

From: VENC (1/3) IC28 (RTV)

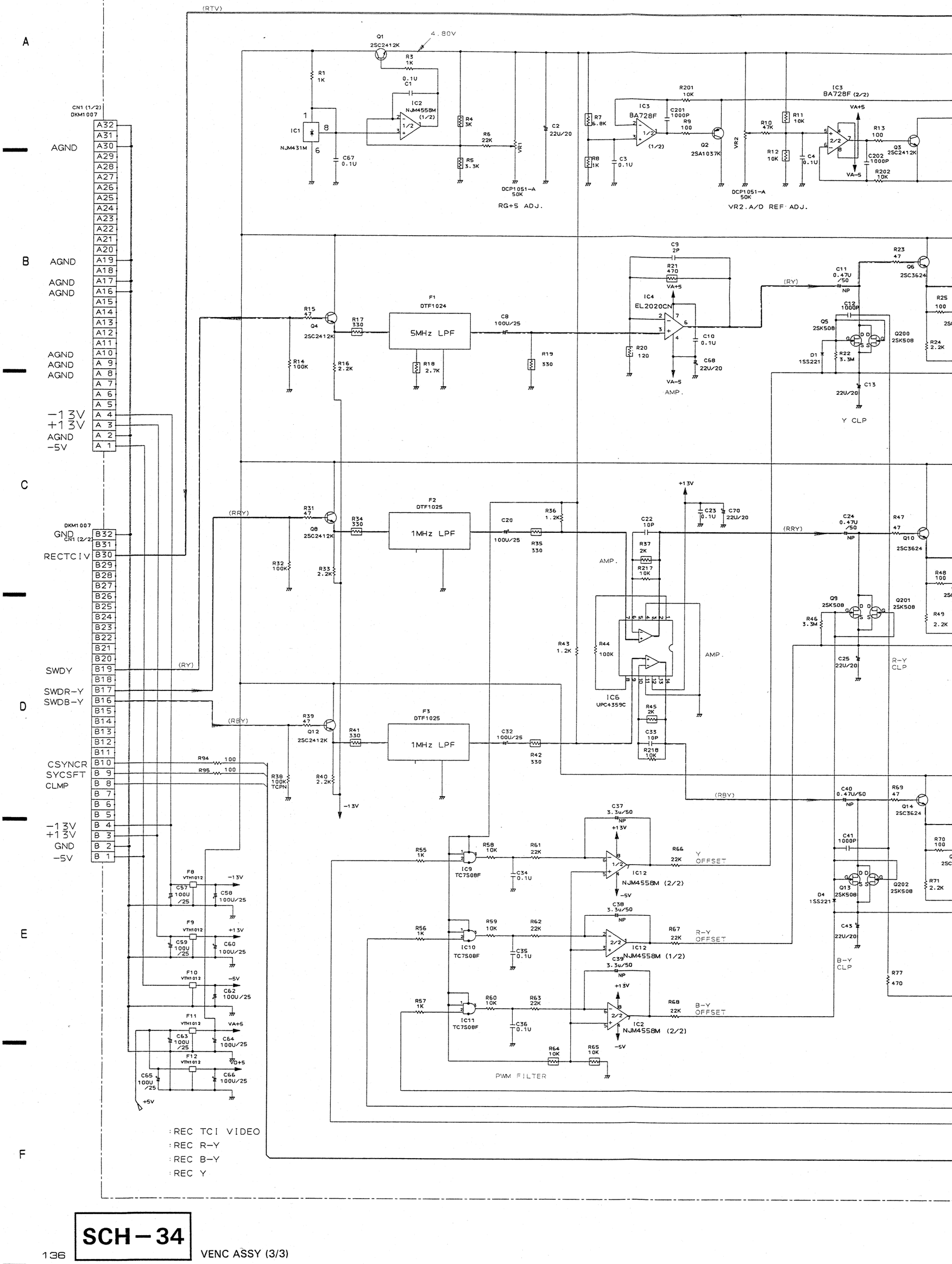
V) : REC TCI VIDEO

V) : REC R-Y

Y) : REC B-Y

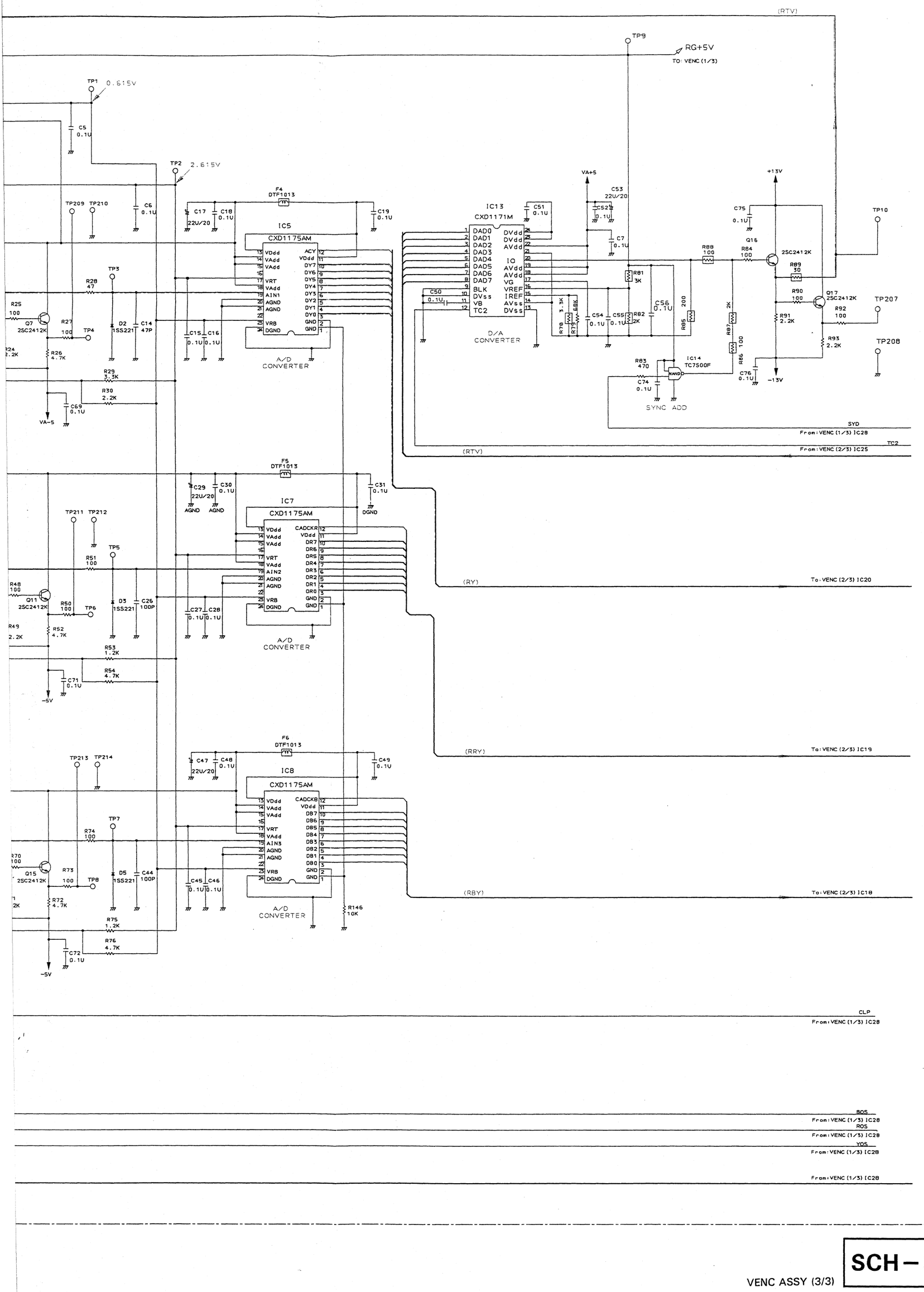
) : REC Y

VENC assy (3/3) (DWV1084)



SCH−34

136 VENC ASSY (3/3)



VENC ASSY (3/3)

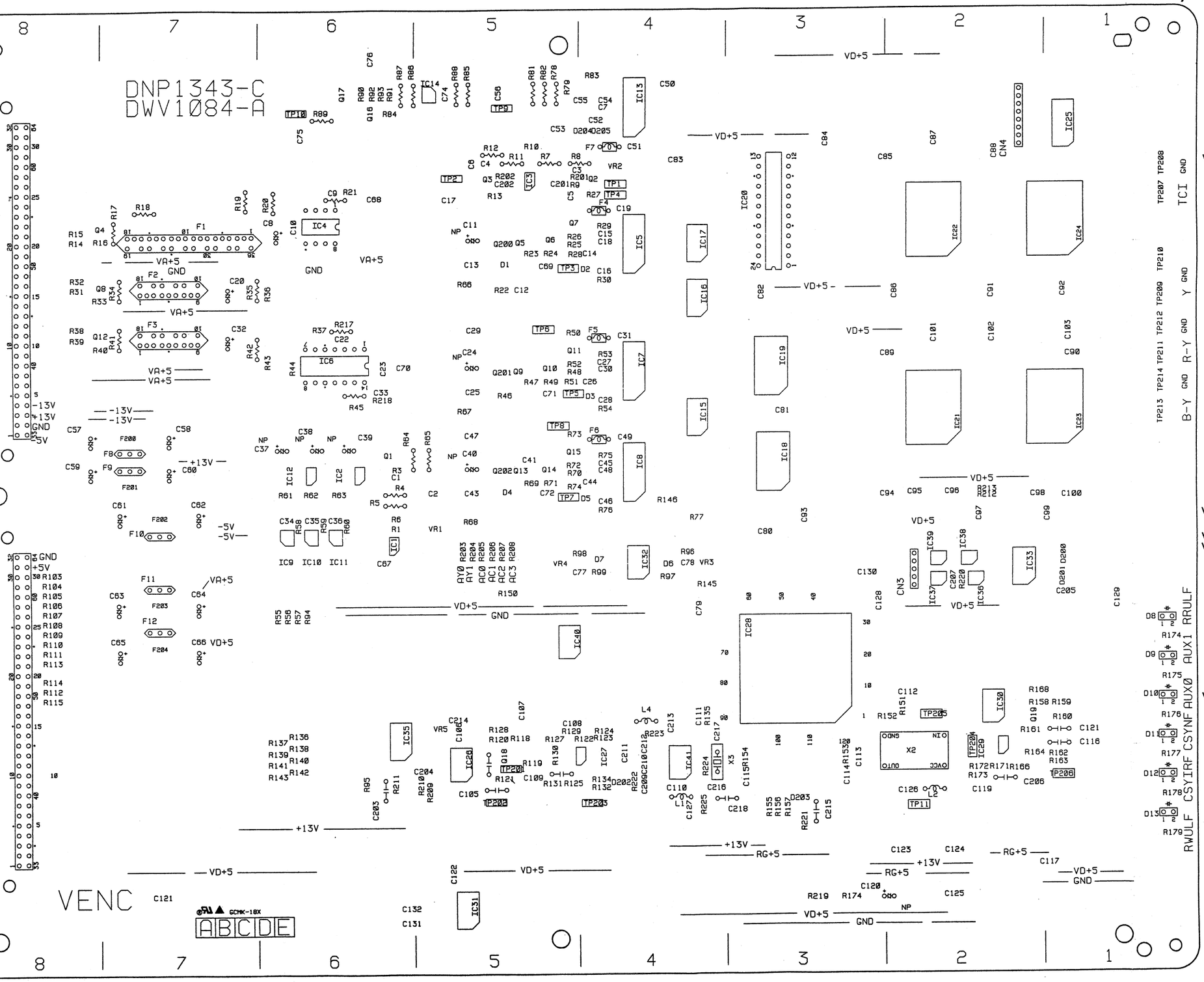
SCH-34

PCB – 17

VENC assy

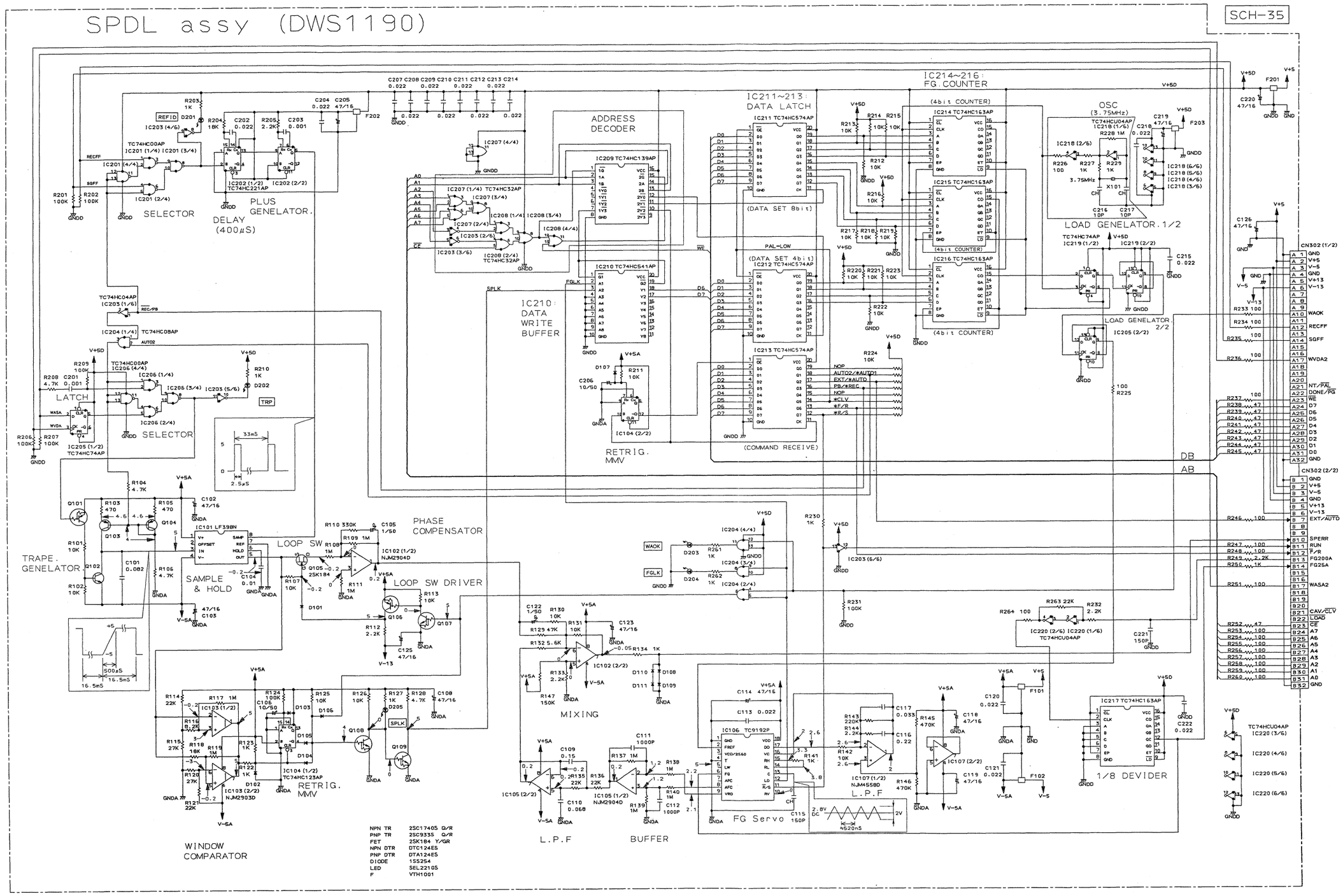
DNP1343-C
DWV1084-A

VENC

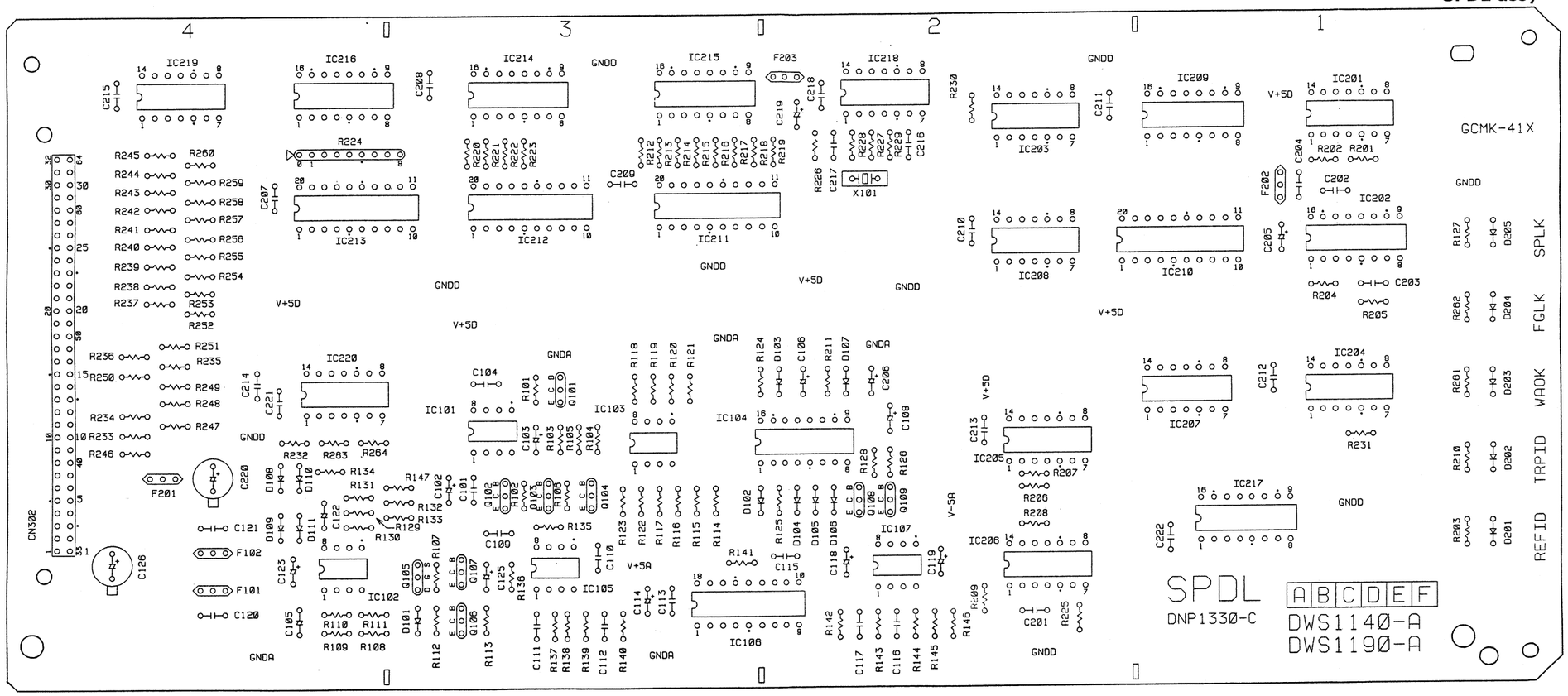


SPDL assy (DWS1190)

SCH-35



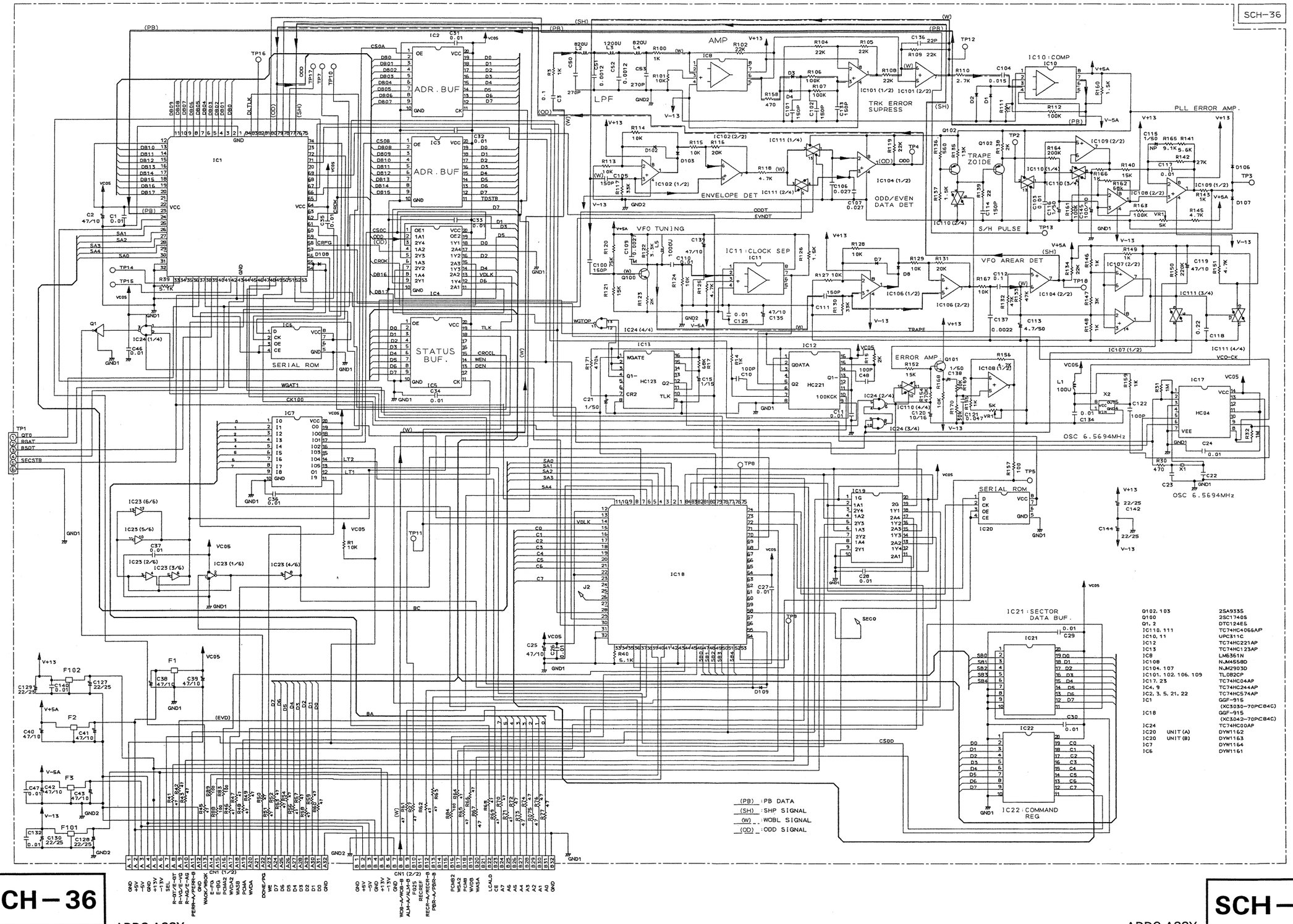
SPDL assy



IC219
IC216 IC213 IC220
IC214 IC212 IC101 IC102 Q102－Q107
Q101 IC103 IC105
IC215 IC211 IC104 IC106
IC218 Q108 IC107 Q109 IC206
IC203 IC205 IC208
IC209 IC210 IC207
IC201 IC202 IC204 IC217

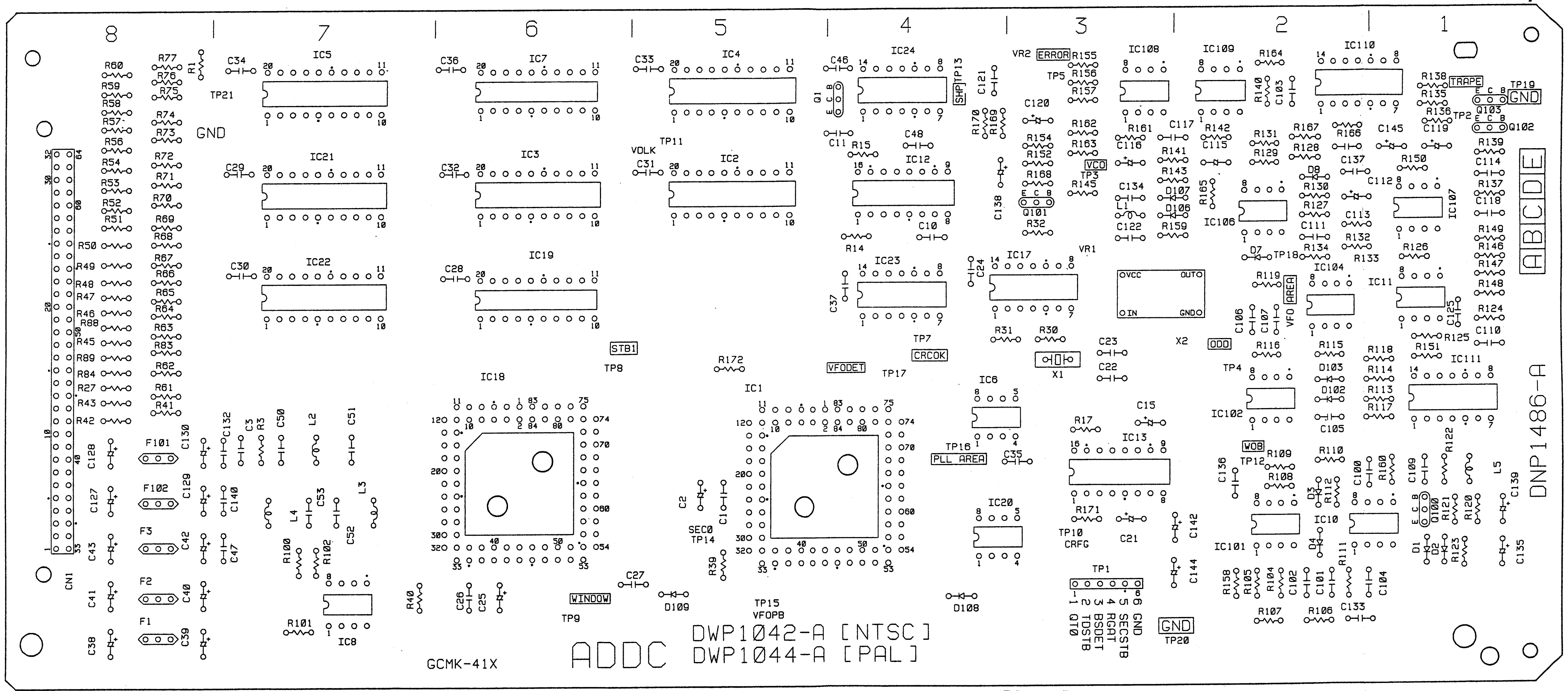
ADDC assy (DWP1042)

SCH-36



Q102, 103	2SA933S
Q100	2SC1740S
Q1, 2	DTC124ES
IC110, 111	TC74HC4066AP
IC10, 11	UPC811C
IC12	TC74HC221AP
IC13	TC74HC123AP
IC8	LM6361N
IC108	NJM4558D
IC104, 107	NJM2903D
IC101, 102, 106, 109	TL082CP
IC17, 23	TC74HC04AP
IC4, 9	TC74HC244AP
IC2, 3, 5, 21, 22	TC74HC574AP
IC1	GGF-915 (XC5030-70PC84C)
IC18	GGF-915 (XC5042-70PC84C)
IC24	TC74HC00AP
IC20 UNIT (A)	DYW1162
IC20 UNIT (B)	DYW1163
IC7	DYW1164
IC6	DYW1161

ADDC assy



VR2 VR1

IC5 IC21 IC22 IC8 IC7 IC3 IC19 IC18 IC4 IC2 Q1 IC1 IC24 IC12 IC23 IC6 IC17 IC20 Q101 IC13 IC108 IC109 IC106 IC102 IC104 IC101 IC10 IC110 IC11 IC107 Q103 Q102 IC111 Q100

VAR1 assy (1/3) (DWV1127)

SCH-37

CN309

A5, B5	+13V
A2, B2	+5V

D101

R101

L102 10μH

L103 10μH

TBC CONTROL VOLTAGE SWITCH
IC101~103

TBC LOCAL CONTROL VOLTAGE AMP
IC104, 105

TBC LOCAL CONTROL VOLTAGE D/A CONVERTER
IC106

IC101

IC102

IC103

IC104

IC105

IC106

IC107

C102 0.022
C103 0.022
C104 0.022
C105 0.022
C106 0.022
C108 0.022
C109 0.022
C110 47/25
C111 0.022
C112 47/25
C113 0.022
C114 47/25
C115 0.022
C116 47/25
C117 0.022
C118 0.022
C119 47/25
C120 0.022

A29	CVVL
A30	CVCL
A31	CVYC
B28	CVSU
B29	CVHU
B30	CVSY
B31	CVSC

B7	RVVL
B8	RVCL
B9	RVYC
B10	RVSU
B11	RVHU
B12	RVSY
B13	RVSC

A4, B4	GND
A6, B6	-13V

D102

N/S

INSEL	B14
SVDATA	A11
SVSTB	A12
CSVI	B15

CSVI

CVVI

METER

REF2.5

(→SCH-38)

2.5V

SYNC LEVEL A/D CONVERTER
IC107

MCK	A10
MDATA	A8
MCS	A9

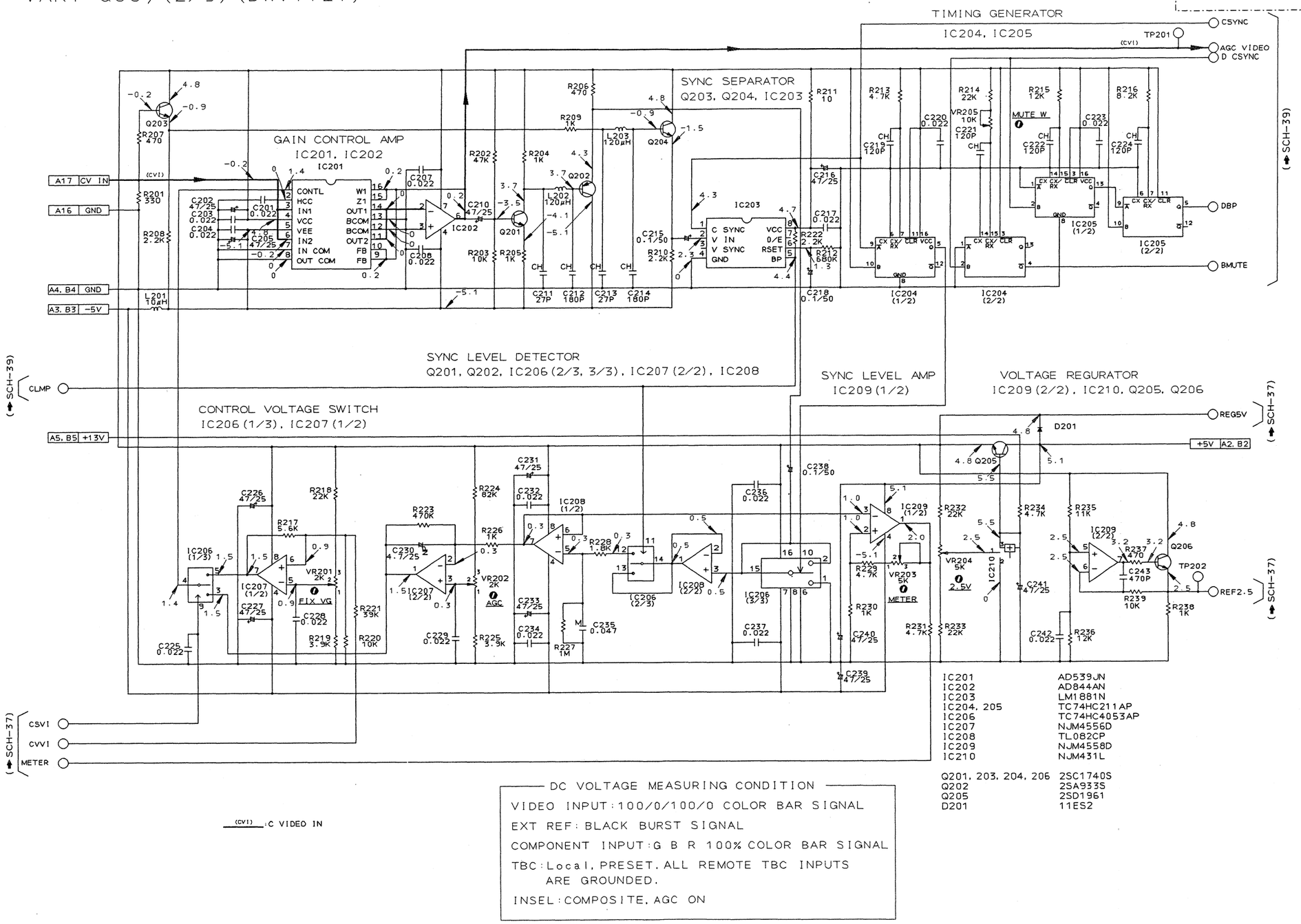
D101, 102	MTZJ6.2A
IC101, 102, 103	TC4053BP
IC104, 105	NJM2058D
IC106	MB88341P
IC107	TLC5481P
R101, 102	DCN1024-A

DC VOLTAGE MEASURING CONDITION

VIDEO INPUT: 100/0/100/0 COLOR BAR SIGNAL
EXT REF: BLACK BURST SIGNAL
COMPONENT INPUT: G B R 100% COLOR BAR SIGNAL
TBC: Local, PRESET. ALL REMOTE TBC INPUTS ARE GROUNDED.
INSEL: COMPOSITE, AGC ON

SCH-38

VAR1 assy (2/3) (DWV1127)



(CV1) : C VIDEO IN

DC VOLTAGE MEASURING CONDITION

VIDEO INPUT: 100/0/100/0 COLOR BAR SIGNAL
EXT REF: BLACK BURST SIGNAL
COMPONENT INPUT: G B R 100% COLOR BAR SIGNAL
TBC: Local, PRESET. ALL REMOTE TBC INPUTS ARE GROUNDED.
INSEL: COMPOSITE, AGC ON

IC201	AD539JN
IC202	AD844AN
IC203	LM1881N
IC204, 205	TC74HC211AP
IC206	TC74HC4053AP
IC207	NJM4556D
IC208	TL082CP
IC209	NJM4558D
IC210	NJM431L
Q201, 203, 204, 206	2SC1740S
Q202	2SA933S
Q205	2SD1961
D201	11ES2

VAR1 assy (3/3) (DWV1127)

SCH-39

IC301	ADB47JN
IC302	CXD1176Q
IC303	CXD2105AQ
IC304	CXD1171M
IC305, 306, 311	TC74HC86AP
IC307	CXD1177Q
IC308	TL082CP
IC309	TC74HC4053AP
IC310	M51271SP
IC312	TC74HC74AP
IC313	TC74HC00AP
Q301~304	2SC1740S
F301	DTF1021
F302	DTF1022
F303~304	DTF1023
X301	DSS1024

VIDEO A/D CONVERTER
IC302

DIGITAL Y/C SEPARATOR
IC303

Y D/A CONVERTER
IC304

VIDEO AMP
IC301

SC PLL OSCLATOR
Q304, IC310

CHROMINANCE
DECODER & D/A CONVERTER
IC305, IC306, IC307

DECODE PHASE DETECTOR
IC308, IC309

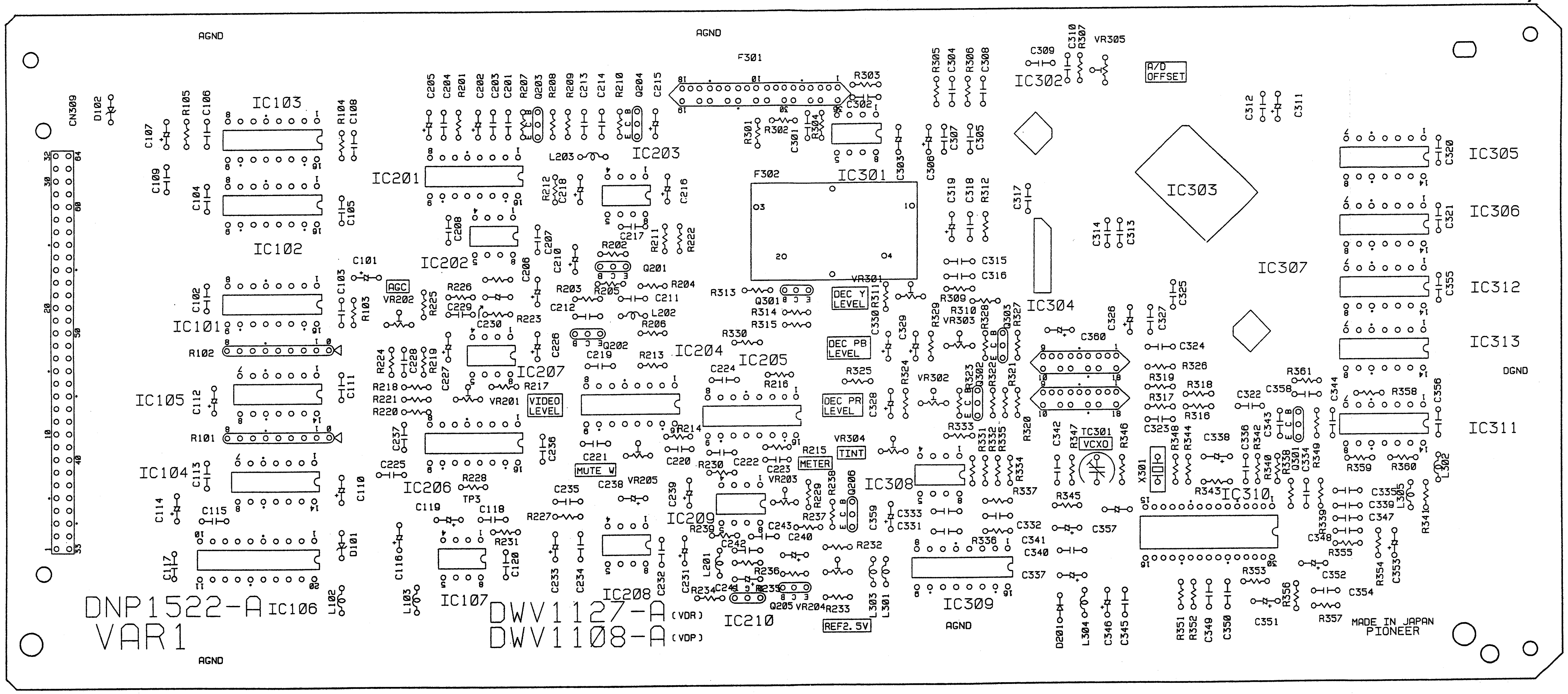
DECODE TIMING GENRATOR
IC311, IC312

BUFF.

(RRY) :REC R-Y
(CVI) :C VIDEO IN
(RBY) :REC B-Y
(RY) :REC Y

DC VOLTAGE MEASURING CONDITION
VIDEO INPUT: 100/0/100/0 COLOR BAR SIGNAL
EXT REF: BLACK BURST SIGNAL
COMPONENT INPUT: G B R 100% COLOR BAR SIGNAL
TBC: Local, PRESET. ALL REMOTE TBC INPUTS ARE GROUNDED.
INSEL: COMPOSITE, AGC ON

VAR1 assy



IC105 IC101 IC103 IC102 IC104 IC106 — VR202 IC201 IC202 IC206 IC107 — VR201 Q203 IC207 — VR205 Q204 IC203 Q202 Q201 IC204 IC208 IC209 IC210 Q205 — VR203 VR204 VR301–VR304 IC205 Q301 IC301 Q206 IC308 IC309 — IC302 Q302 Q303 IC304 — IC303 IC310 — IC307 Q304 — IC305 IC306 IC311–IC313

VAR2 assy (1/3) (DWV1128)

SCH-40

DC VOLTAGE MEASURING CONDITION

VIDEO INPUT: 100/0/100/0 COLOR BAR SIGNAL

EXT REF: BLACK BURST SIGNAL

COMPONENT INPUT: G B R 100% COLOR BAR SIGNAL

TBC: Local, PRESET. ALL REMOTE TBC INPUTS ARE GROUNDED.

INSEL: COMPOSITE, AGC ON

IC101, 102, 103 μPC4359C
IC104, 105 TC74HC4052AP
IC106, 107, 108 AD847JN

BUFFER
IC106, IC107, IC108

INPUT SIGNAL SWITCH
IC104, IC105

GBR MATRIX
IC101, IC102, IC103

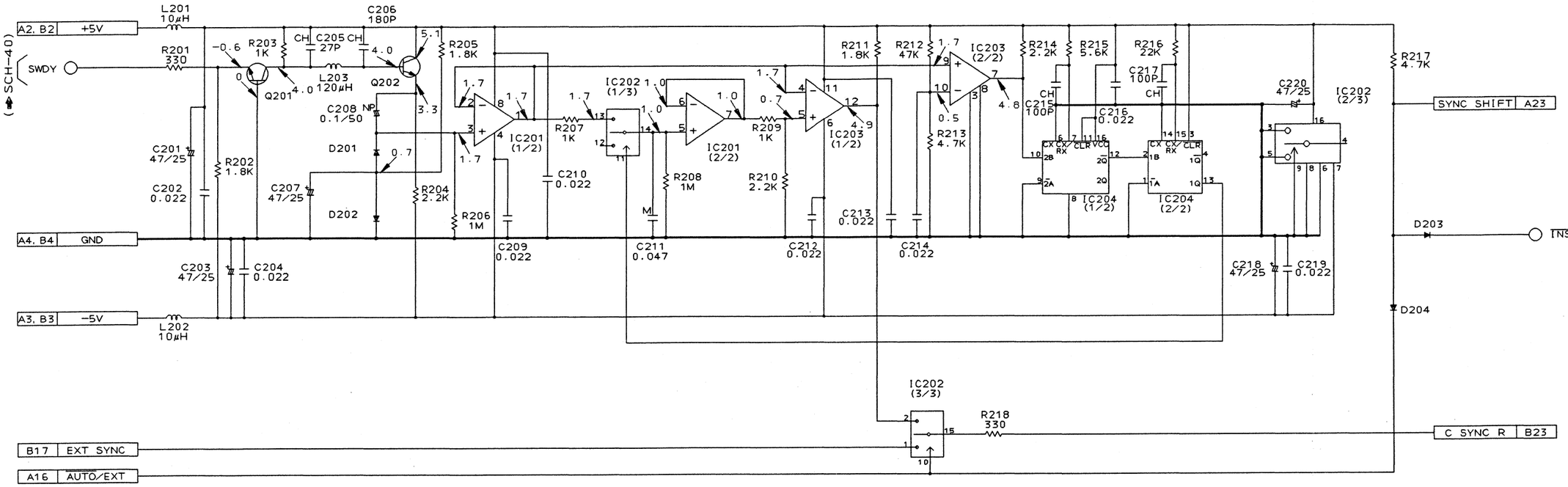
(RRY) : REC R-Y
(RBY) : REC B-Y
(RY) : REC Y

SCH-41

VAR2 assy (2/3) (DWV1128)

SYNC SEPARATOR

Q201, Q202, IC201~IC204



DC VOLTAGE MEASURING CONDITION

VIDEO INPUT: 100/0/100/0 COLOR BAR SIGNAL

EXT REF: BLACK BURST SIGNAL

COMPONENT INPUT: G B R 100% COLOR BAR SIGNAL

TBC: Local, PRESET. ALL REMOTE TBC INPUTS ARE GROUNDED.

INSEL: COMPOSITE, AGC ON

D201, 202, 203, 204	1SS254
Q201, 202	2SC1740S
IC201	NJM082D
IC202	TC74HC4053AP
IC203	μPC319C
IC204	TC74HC221AP

SCH-42

VAR2 assy (3/3) (DWV1128)

RECTCI AMP
Q301, Q302

EMPHASIS & RF MODULATOR
IC301

BUFFER
Q305

B25 CLMP
B27 REC TCIV
A27 GND
A4. B4 GND
A2, B2 +5V
A5, B5 +13V
A6. B6 −13V
A3, B3 −5V

R332 4.7K, L302 33uH, C327 75P
R301 300 (RTV)
F301 6M LPF
R304 4.7K, R305 470
R302 330
R303 1K
Q301 0
Q302 3.0
C301 0.022
C302 0.022
R306 1K
C323 47/25
D301 11ES2
TP302
Q303 2SD1961
R326 2.2K
R327 10K
R328 10K
C322 47u/25
IC303 4.8V
VR305 2K
NJM431L
C325 0.022
IC304 (2/2)
C324 0.022

+4.8V REGURATOR
Q303, IC303

R329 10K
R330 10K
Q304 2SB1306
R331 1K
IC304 (1/2)
NJM4558D

−4.8V REGURATOR
Q304, IC304

L301 10uH
R319 10K
C316 0.022
R321 47K
VR304 2K DUTY
IC302
C317 47/25
R320 10K
C318 0.022
IC302 TC74HC04AP

RF DRIVER
IC302

IC301 CXA1052Q
C303 100/105.0 (RTV)
C304 68P
R307 1K
R308 2.7K
C306 4.7/50
TP301
VR306 500 EMPH
R309 5.1K
C307 0.022
C305 4.7/50
R310 2.2K
VR301 2K DEV
R311 2.2K
C308 12P
R312 4.7K
R313 470
C310 0.022
C311 47/25
C312 0.022
R314 1K
VR302 2K W CLIP
R315 1K
C314 12P
R316 820
C313 8P
R317 5.6K
VR303 2K CARR
R318 15K
C315 0.022

R333 100
R334 1K
R335 100
Q305
TP303
TP304

R322 150
C320 4700P YB
R324 150
C321 4700P YB
R325 150
R323 150YB
C326 1000P
C319 4700P YB

GND A31
GND A29
(EE) EE RFV B29
(RR) REC RFV B31

(RTV) : REC TCI VIDEO
(RR) : REC RF
(EE) : EE RF

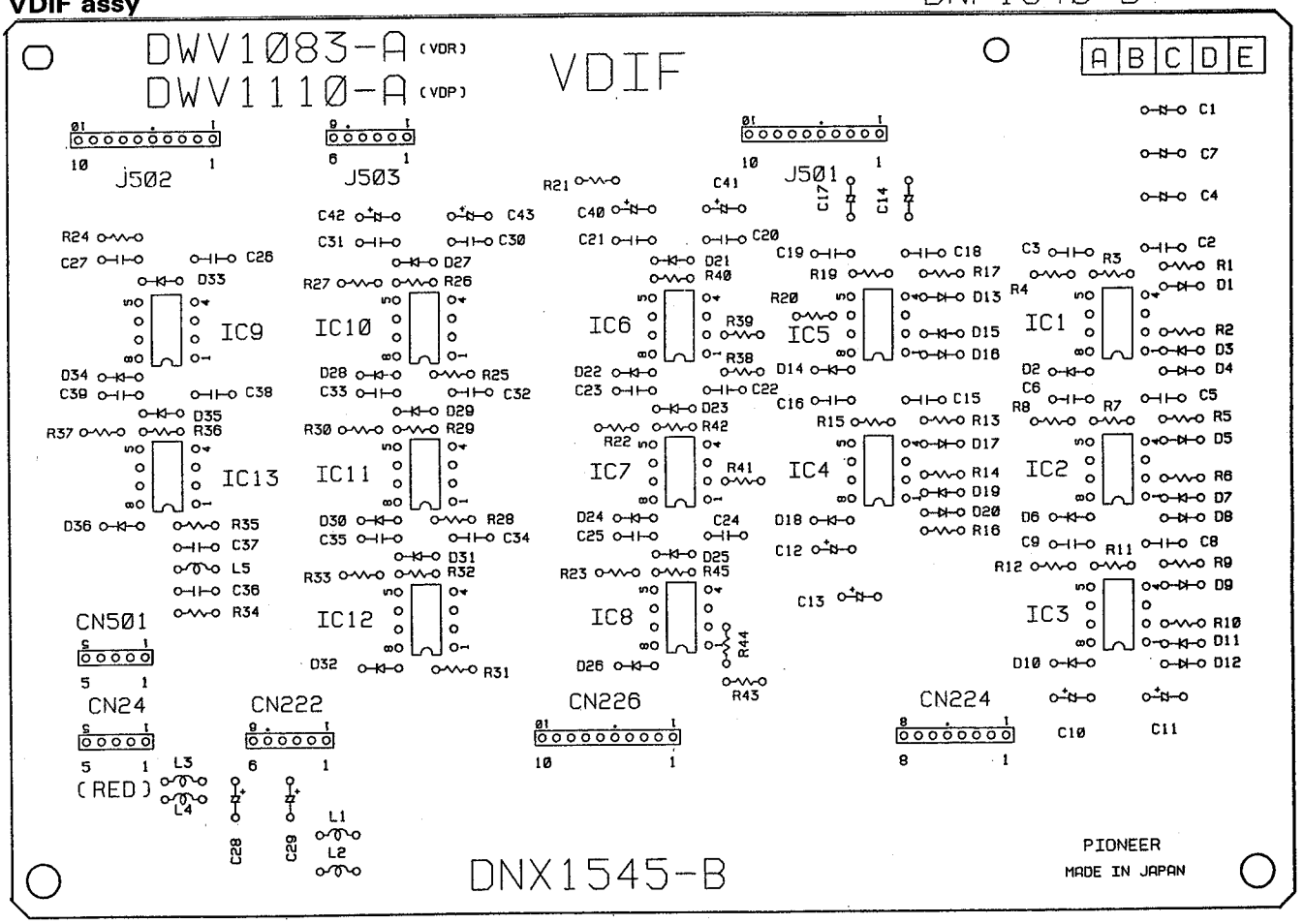
DC VOLTAGE MEASURING CONDITION

VIDEO INPUT: 100/0/100/0 COLOR BAR SIGNAL
EXT REF: BLACK BURST SIGNAL
COMPONENT INPUT: G B R 100% COLOR BAR SIGNAL
TBC: Local, PRESET. ALL REMOTE TBC INPUTS ARE GROUNDED.
INSEL: COMPOSITE, AGC ON

VDIF assy

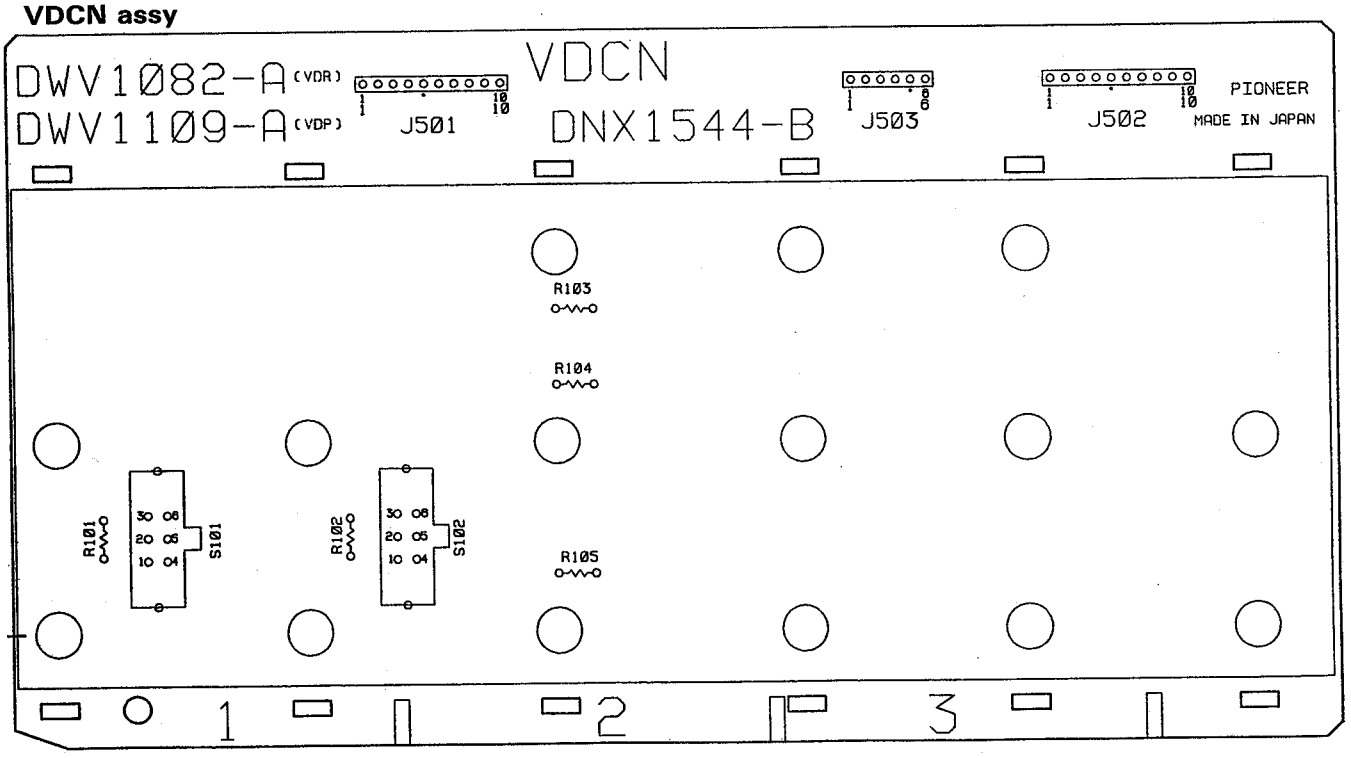
DNP1340-D

PCB-22



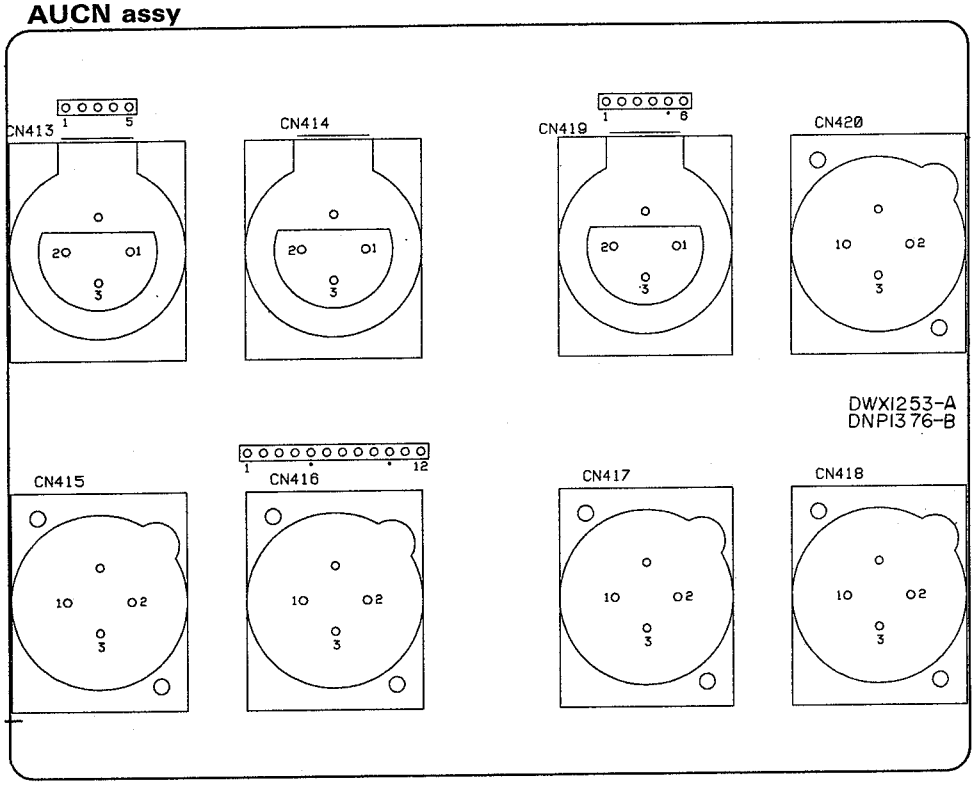
IC9 IC13 IC10-IC12 IC6-IC8 IC5 IC4 IC1-IC3

VDCN assy

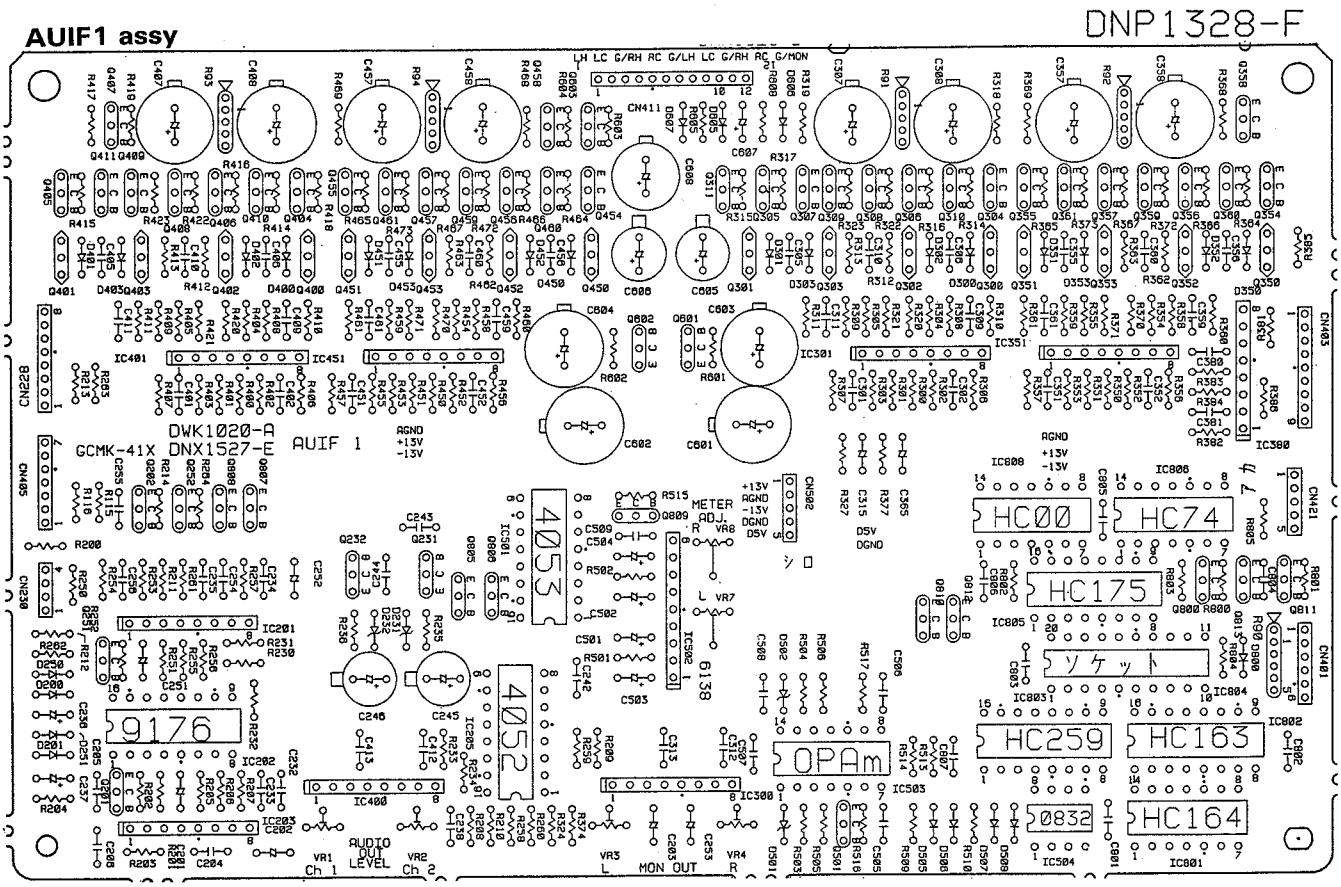


4.24 AUIF1 ASSY AND AUCN ASSY

AUCN assy



AUIF1 assy



VR1 VR2 VR3 VR8 VR7 VR4

Q400 - Q411 Q450 - Q461 Q603 Q602 Q601 Q300 - Q311 Q350 - Q361

Q202 Q252 Q808 Q807 IC401 Q232 IC451 Q231 Q805 Q806 IC501 Q809 IC301 Q810 Q812 IC808 IC351 Q800 Q813 IC380 Q811

Q251 Q201 IC201 - IC203 IC400 IC205 IC502 IC300 IC503 IC504 IC801 - IC806

SCH-44

AUIF1 assy (1/2) (DWK1020)

IC201, 203 ----- M5238L
IC300, 301, 351, 380
400, 401, 451 ----- NJM4580L
IC202 ----- TC9176P
IC205 ----- TC4052BP

1%:METAL FILM RESISTOR
(TOLERANCE:±1%)
NO MARKS:CARBON RESISTOR
(TOLERANCE:±5%)

CH1

CH2

MONL

MONR

AUCN assy (DWX1253)

D200, 201, 250, 251, 300~303, 350~353, 400~403, 450~453, 605~607 ----- 1SS254

Q300, 301, 350, 351, 400, 401, 450, 451, 601 ----- 2SD669A

Q302, 303, 352, 353, 402, 403, 452, 453, 602 ----- 2SB649A

Q304, 305, 354, 355, 404, 405, 454, 455 ----- 2SC1740S

Q306, 307, 356, 357, 406, 407, 456, 457, 603 ----- 2SA933S

Q308~311, 358~361, 408~411, 458~461 ----- 2SC3327

Q805~808 ----- DTC124ES

Q202, 252 ----- DTA124ES

Q201, 251 ----- 2SK372

R91~94 ----- RA4T104J

VR1~4 ----- DCP1036

POWER ON MUTE
MUTE +12
NORMALY -12

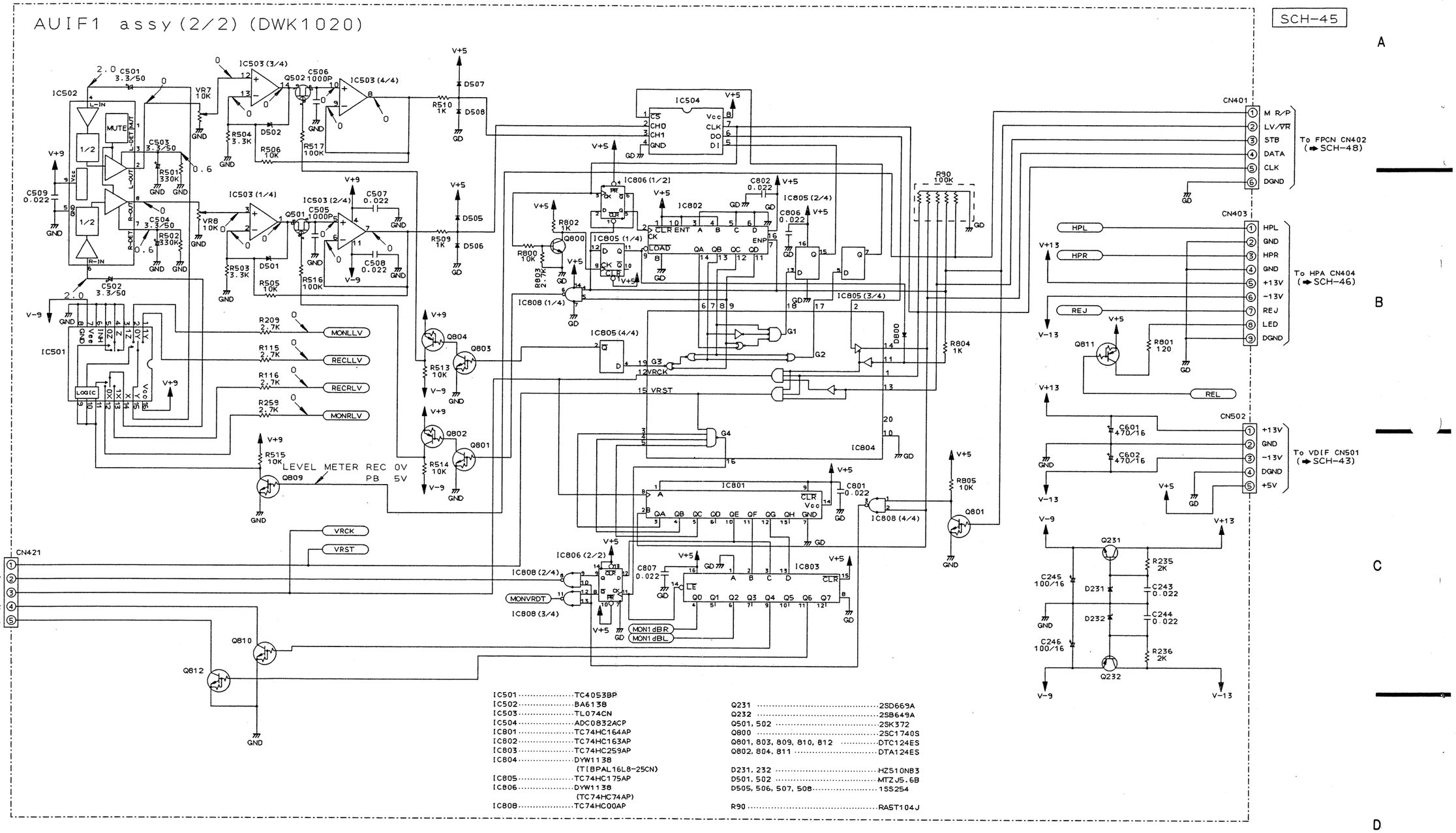
(A11) : ANALOG AUDIO CH1 SIGNAL IN

(A10) : ANALOG AUDIO CH1 SIGNAL OUT

(M) : MONITER OUT

AUIF1 assy (2/2) (DWK1020)

SCH-45



IC501 ..... TC4053BP
IC502 ..... BA6138
IC503 ..... TL074CN
IC504 ..... ADC0832ACP
IC801 ..... TC74HC164AP
IC802 ..... TC74HC163AP
IC803 ..... TC74HC259AP
IC804 ..... DYW1138 (TIBPAL16L8-25CN)
IC805 ..... TC74HC175AP
IC806 ..... DYW1138 (TC74HC74AP)
IC808 ..... TC74HC00AP

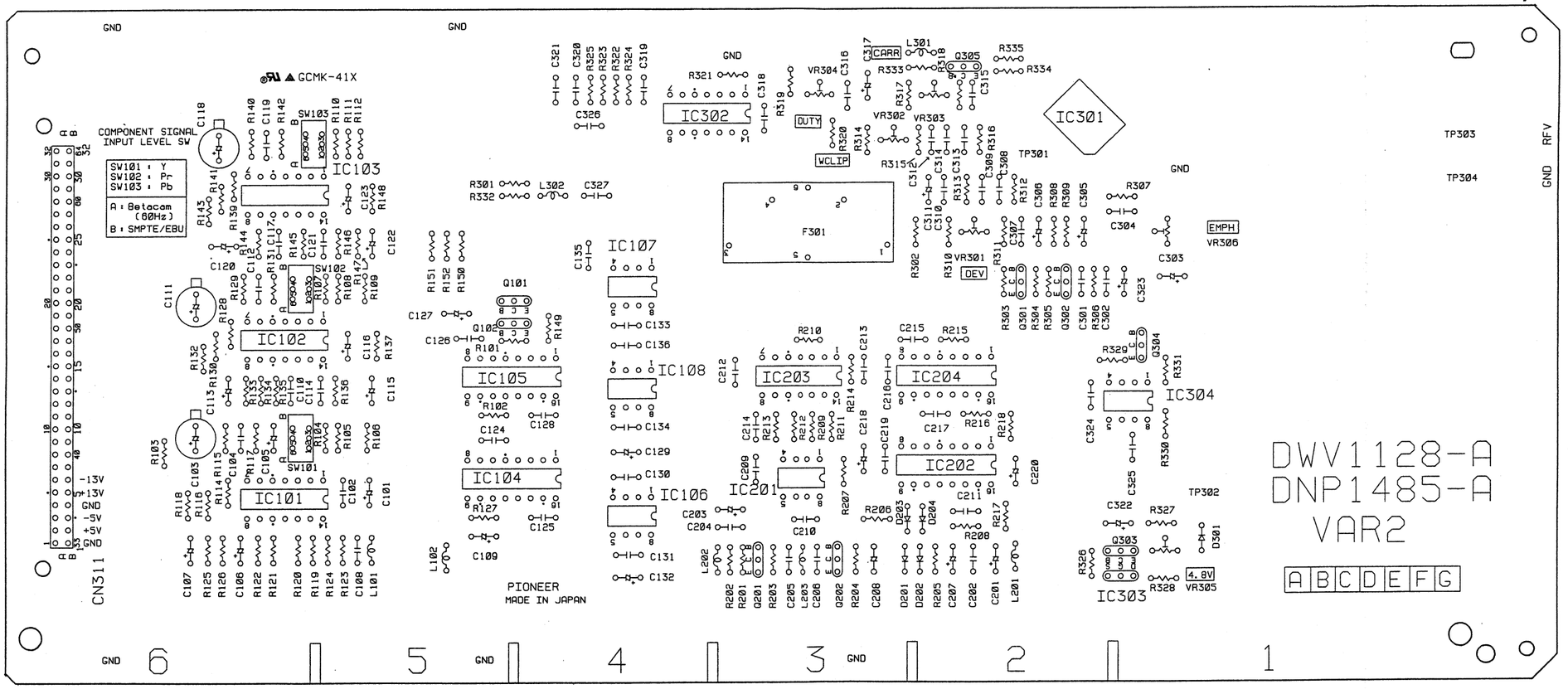
Q231 ..... 2SD669A
Q232 ..... 2SB649A
Q501, 502 ..... 2SK372
Q800 ..... 2SC1740S
Q801, 803, 809, 810, 812 ..... DTC124ES
Q802, 804, 811 ..... DTA124ES

D231, 232 ..... HZS10NB3
D501, 502 ..... MTZJ5.6B
D505, 506, 507, 508 ..... 1SS254

R90 ..... RAST104J

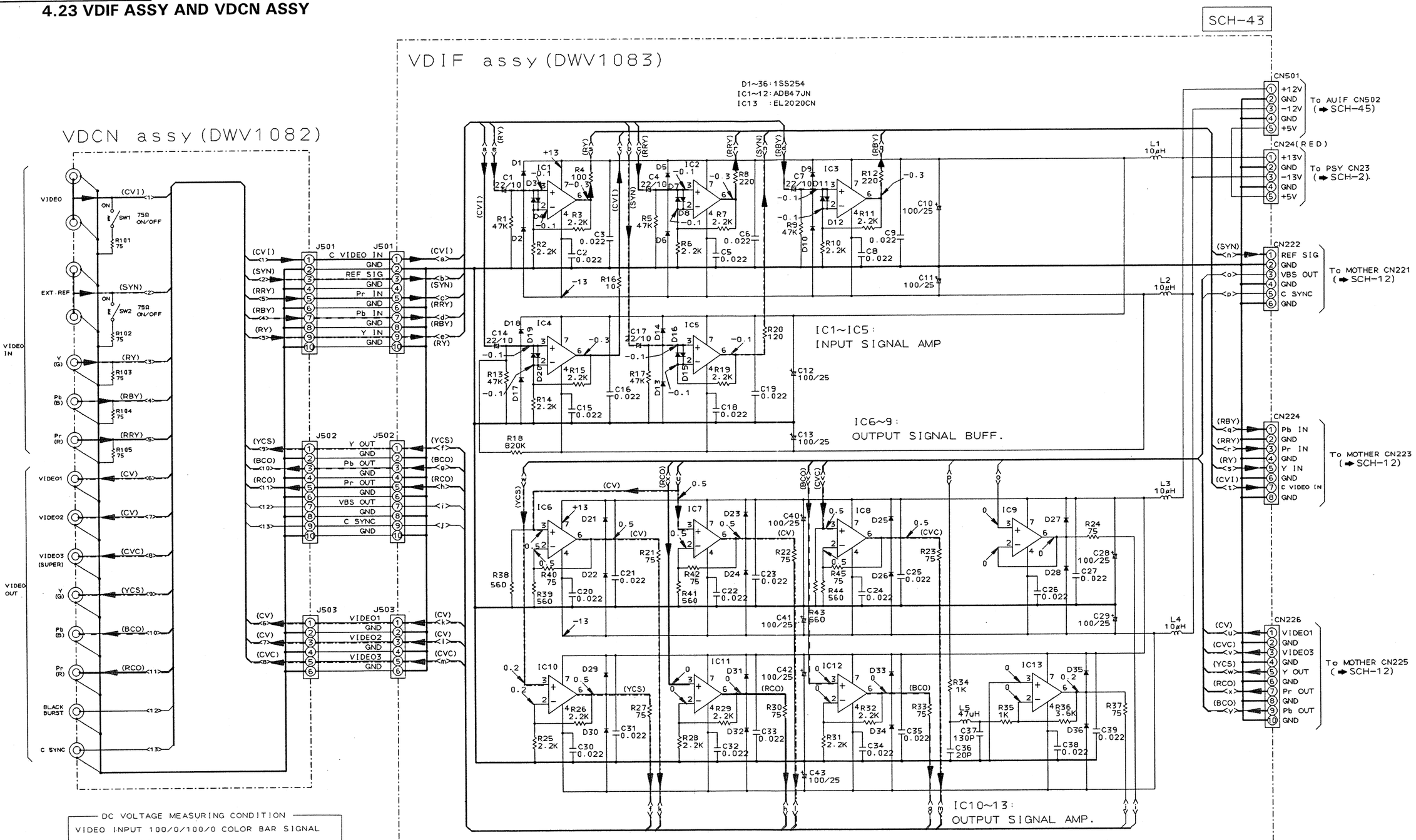
AUIF1 ASSY (2/2) SCH-45

VAR2 assy



VR304	VR302	VR303	VR301		VR305
IC103		IC302		Q305	IC301
IC102	IC105 Q101 Q102	IC107 IC108 IC203		IC204 Q301	Q302 Q304 IC304
IC101	IC104	IC106 IC201 Q201 Q202			IC202 Q303 IC303

4.23 VDIF ASSY AND VDCN ASSY



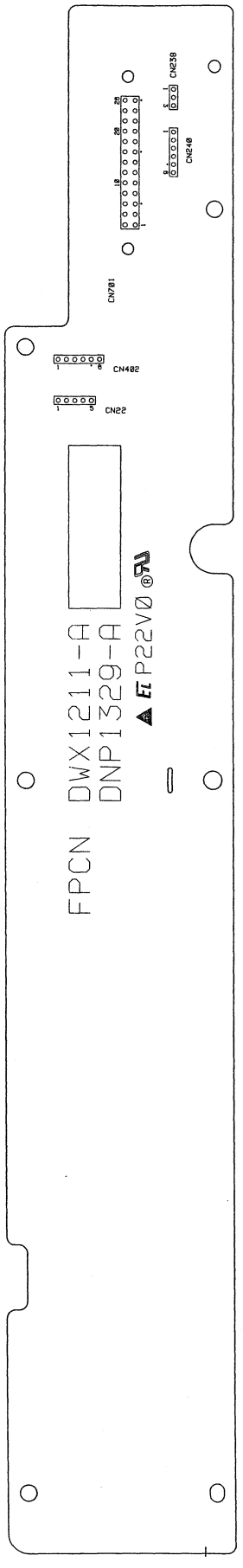
DC VOLTAGE MEASURING CONDITION

VIDEO INPUT 100/0/100/0 COLOR BAR SIGNAL
EXT REF: BLACK BURST SIGNAL
COMPONENT INPUT G B R 100% COLOR BAR SIGNAL
TBC Local, PRESET. ALL REMOTE TBC INPUTS ARE GROUNDED.
INSEL COMPOSITE. AGC ON

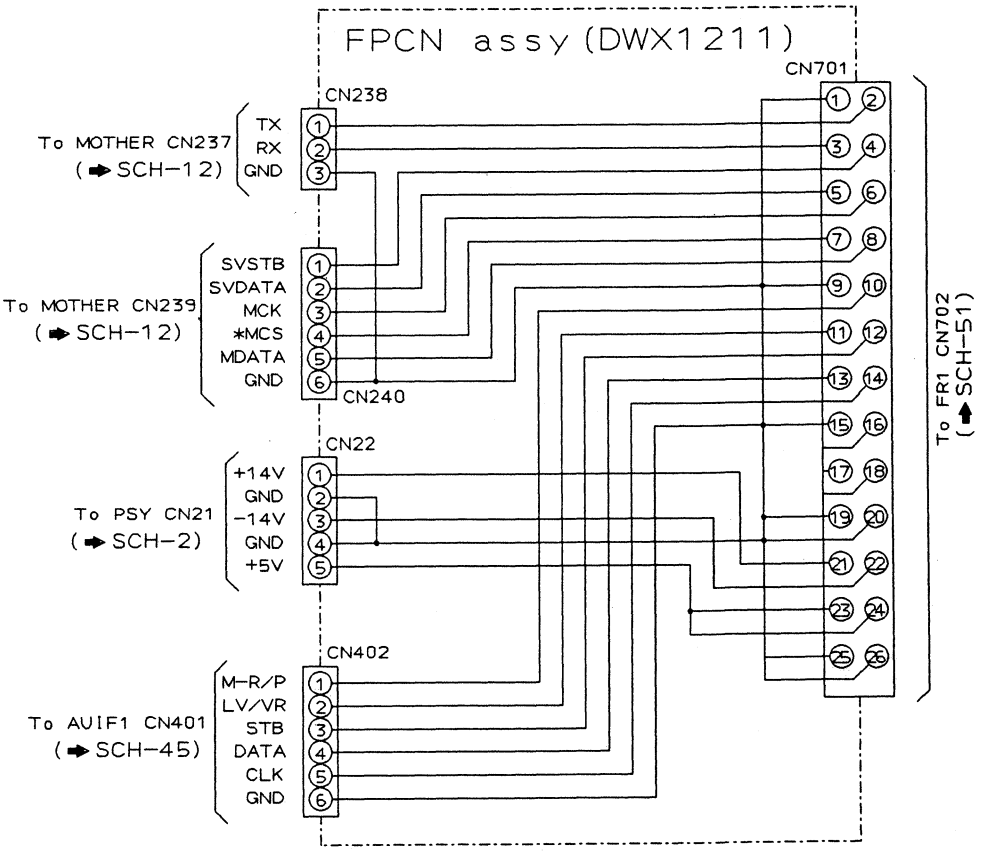
(RRY) : REC R-Y
(RCO) : R-Y COMPONENT OUT
(CVI) : C VIDEO IN
(RBY) : REC B-Y
(BCO) : B-Y COMPONENT OUT
(YCS) : Y COMPONENT SYNC
(SYN) : SYNC SEPARATED FROM REFERENCE INPUT
(RY) : REC Y
(CV) : COMPOSITE VIDEO
(CVC) : COMPOSITE VIDEO WITH CHARACTER

4.27 FPCN ASSY

FPCN assy

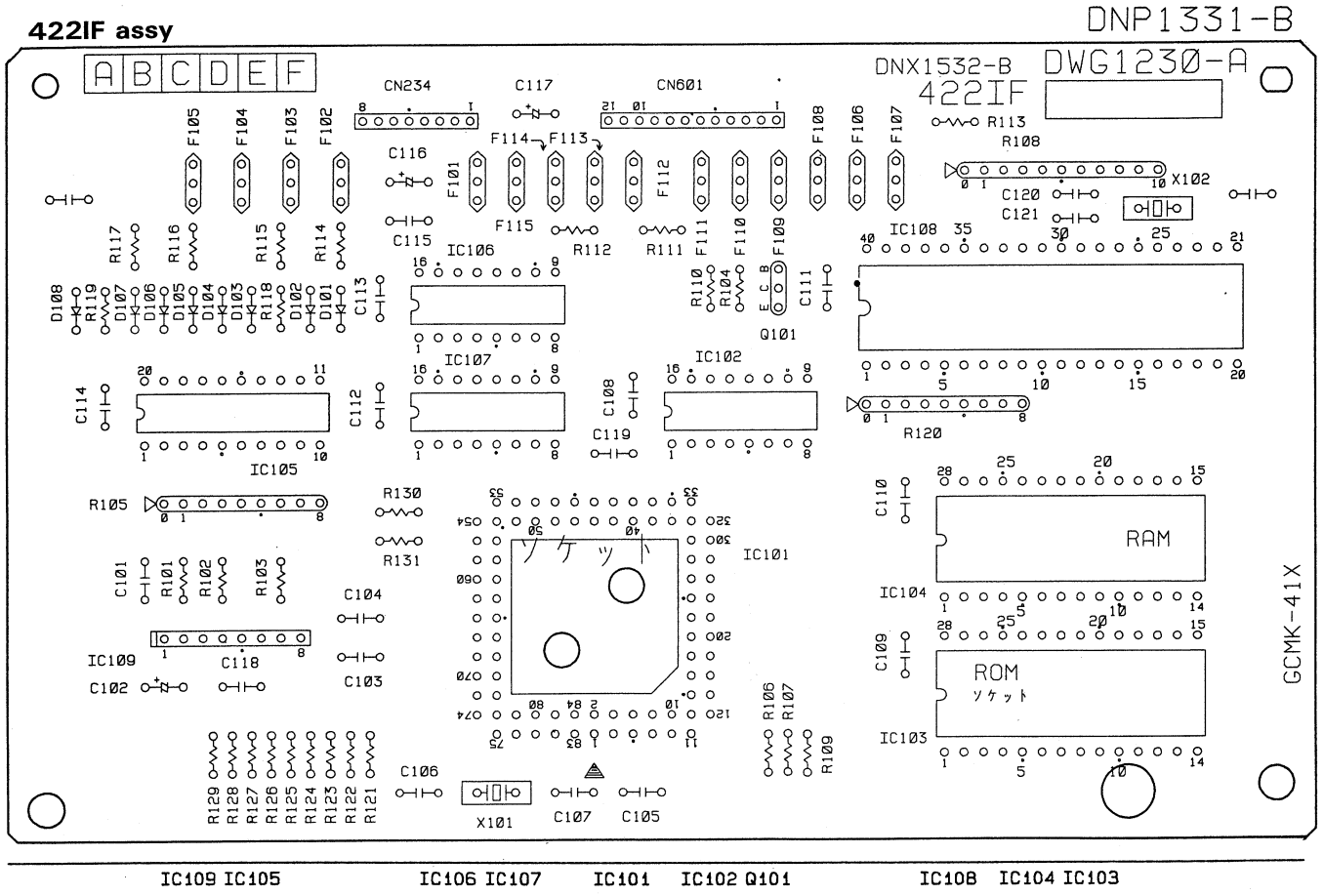


SCH-48



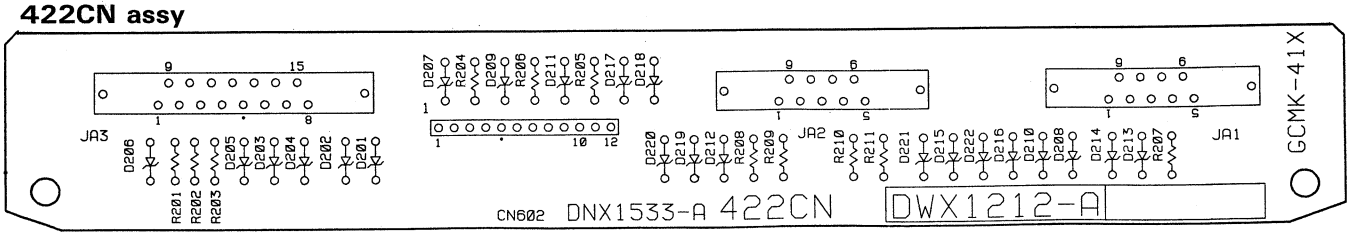
4.28 422IF ASSY AND 422CN ASSY

422IF assy



IC109 IC105 IC106 IC107 IC101 IC102 Q101 IC108 IC104 IC103

422CN assy



422IF assy (DWG1230)

SCH-49

D101-D108 1SS254 R121-R131 22K
F101 VTH1001
F104-F115 VTH1005
F102, F103 DTF1003

IC109:RESET&WATCH DOG

IC102: IC SELECTOR TC74HC138AP

IC103:ROM ROM DYW1309 (27C256AK-12)

IC104:RAM HM6264AP-12

IC101 uPD70320-L8 IC101:CPU

Q101 DTC124

INTERRUPTION INVERTER

MC34050P IC106

TC74HC4053AP IC107 IC107:SW.

IC106:422⇔232C SIGNAL CONVERSION

uPD72001C-11 IC108 IC108:MULTI PROTOCOL SERIAL CONTROLLER

TC74HC541AP IC105 IC105:BUFFER

X101 16MHz X102 DSS1001

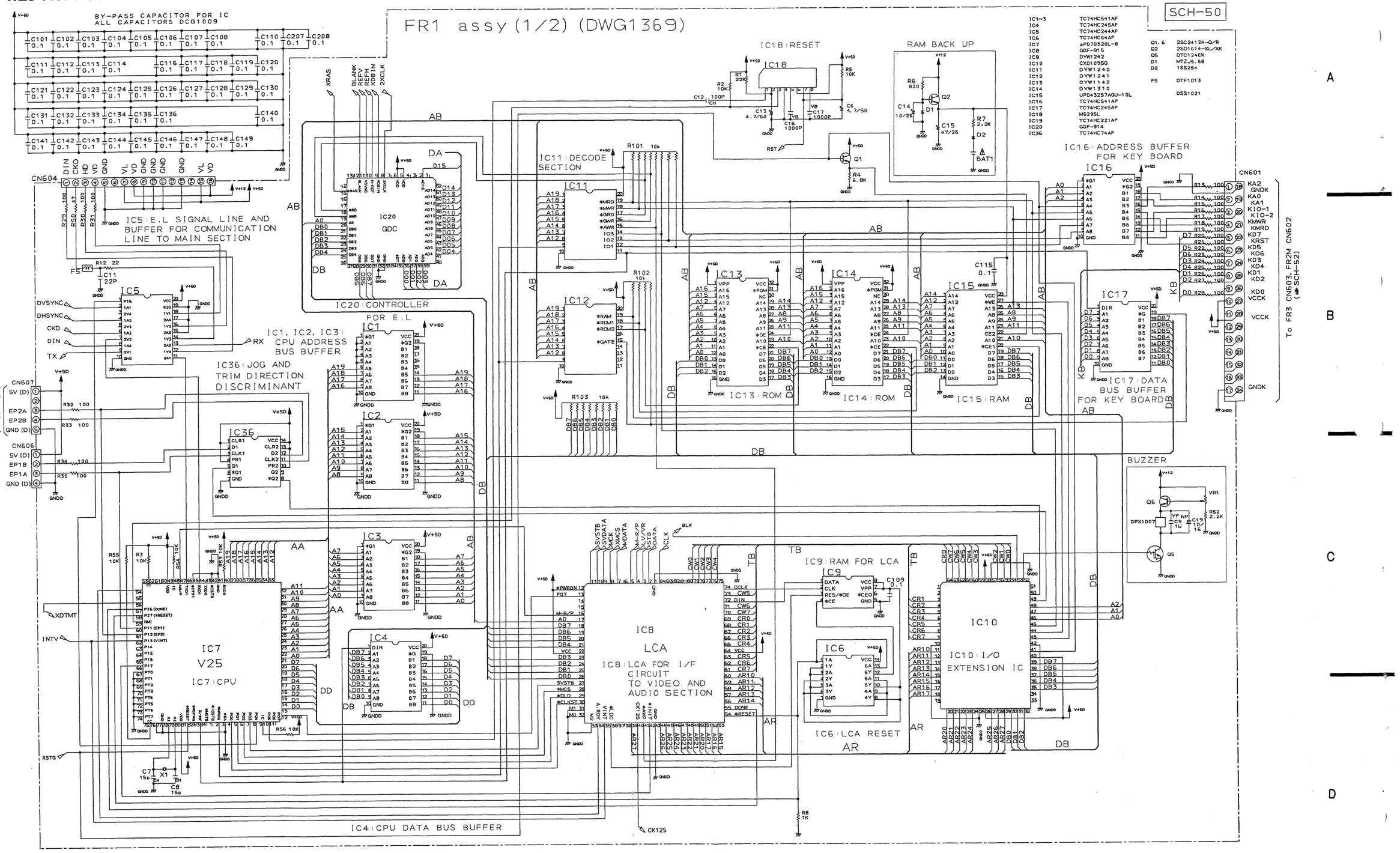
CN234 To MOTHER CN233 (SCH-12)

CN601 CN602

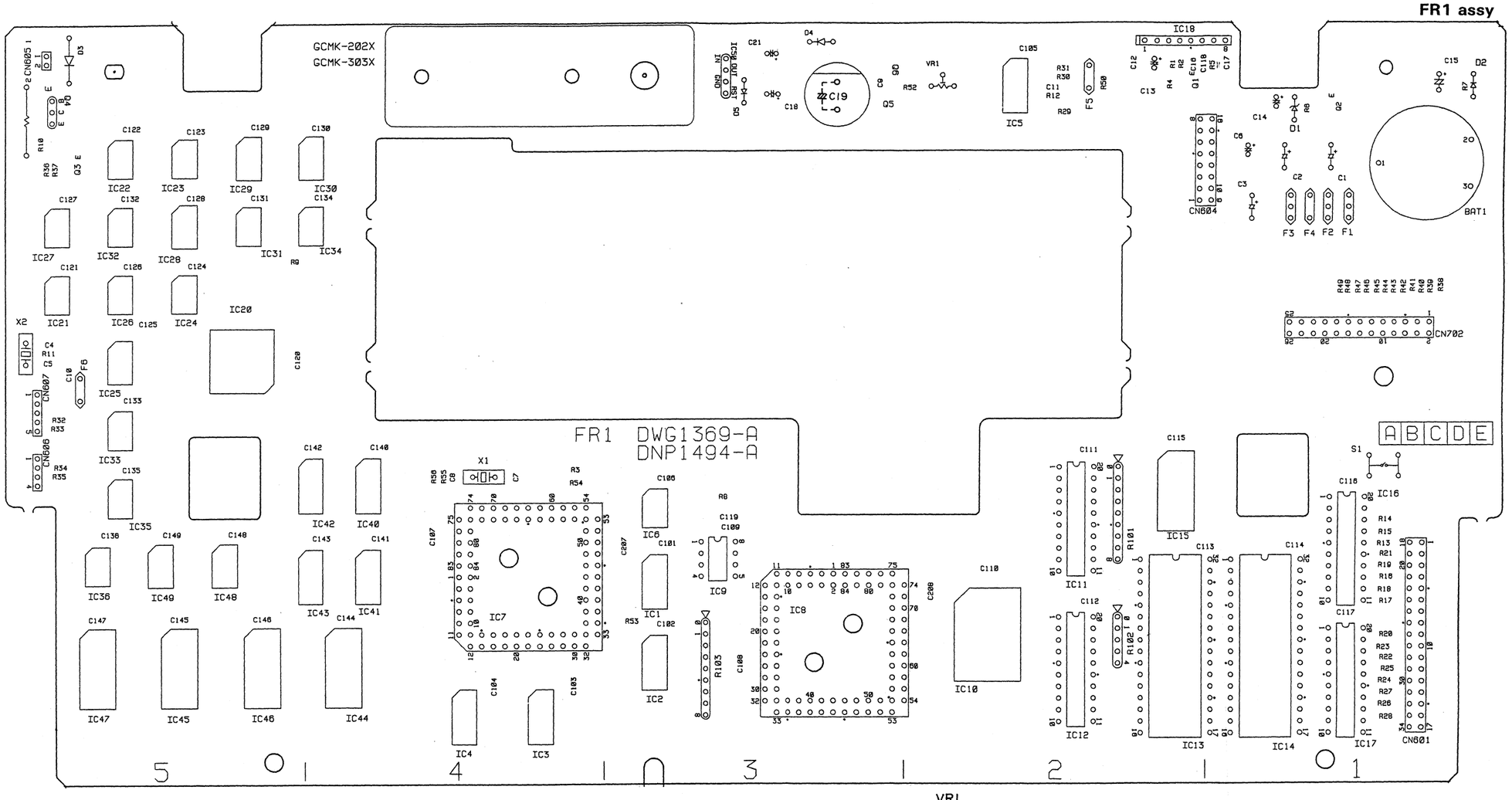
422CN assy (DWX1212)

D:
MTZJ16B/C
R204, 205, 210, 211=1
R201-203, 206-209=100

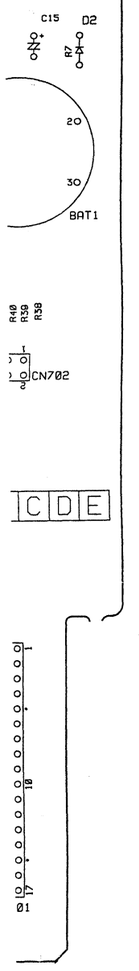
JA3 232C JA1 422IN JA2 422OUT


FR1 assy (1/2) (DWG1369)
SCH-50
BY-PASS CAPACITOR FOR IC
ALL CAPACITORS DCG1009
IC1-3 TC74HC541AF
IC4 TC74HC245AF
IC5 TC74HC244AF
IC6 TC74HC04AF
IC7 μPD70320L-8
IC8 GGF-915
IC9 DYW1242
IC10 CXD1095Q
IC11 DYW1240
IC12 DYW1241
IC13 DYW1142
IC14 DYW1310
IC15 UPD43257AGU-10L
IC16 TC74HC541AP
IC17 TC74HC245AP
IC18 MS29SL
IC19 TC74HC221AF
IC20 GGF-914
IC36 TC74HC74AF
Q1,6 2SC2412K-Q/R
Q2 2SD1614-XL/XK
Q5 DTC124EK
D1 MTZJ5.6B
D2 1SS254
F5 DTF1013
DSS1021
IC18:RESET
RAM BACK UP
IC16:ADDRESS BUFFER FOR KEY BOARD
IC11:DECODE SECTION
IC5:E.L SIGNAL LINE AND BUFFER FOR COMMUNICATION LINE TO MAIN SECTION
IC20:CONTROLLER FOR E.L
IC1, IC2, IC3: CPU ADDRESS BUS BUFFER
IC36:JOG AND TRIM DIRECTION DISCRIMINANT
IC13:ROM
IC14:ROM
IC15:RAM
IC17:DATA BUS BUFFER FOR KEY BOARD
BUZZER
IC7 V25 IC7:CPU
IC8 LCA IC8:LCA FOR I/F CIRCUIT TO VIDEO AND AUDIO SECTION
IC9:RAM FOR LCA
IC6:LCA RESET
IC10 IC10:I/O EXTENSION IC
IC4:CPU DATA BUS BUFFER
To JOG CN608 (◆SCH-52)
To FR3 CN603, FR2M CN602 (◆SCH-52)
CN601
CN604
CN607
CN606

FR1 assy

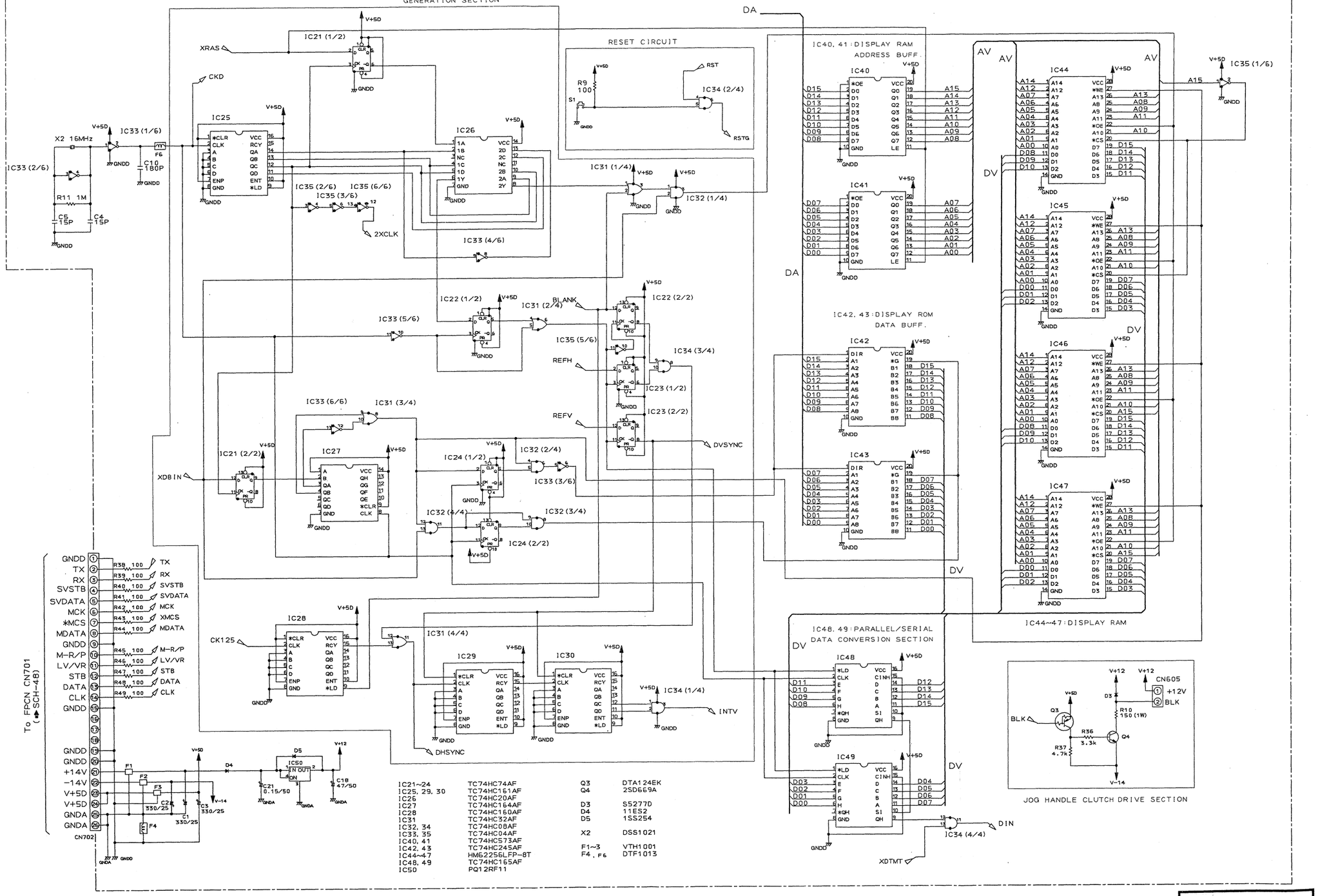

GCMK-202X
GCMK-303X
FR1 DWG1369-A
DNP1494-A
CN605
CN606
CN607
CN604
CN702
CN601
BAT1
X1
X2
S1
VR1
IC1 IC2 IC3 IC4 IC5 IC6 IC7 IC8 IC9 IC10 IC11 IC12 IC13 IC14 IC15 IC16 IC17 IC18 IC20 IC21 IC22 IC23 IC24 IC25 IC26 IC27 IC28 IC29 IC30 IC31 IC32 IC33 IC34 IC35 IC36 IC40 IC41 IC42 IC43 IC44 IC45 IC46 IC47 IC48 IC49 IC50
Q1 Q2 Q3 Q4 Q5 Q6
D1 D2 D3 D4 D5
F1 F2 F3 F4 F5 F6
A B C D E
1 2 3 4 5 6

FR1 assy



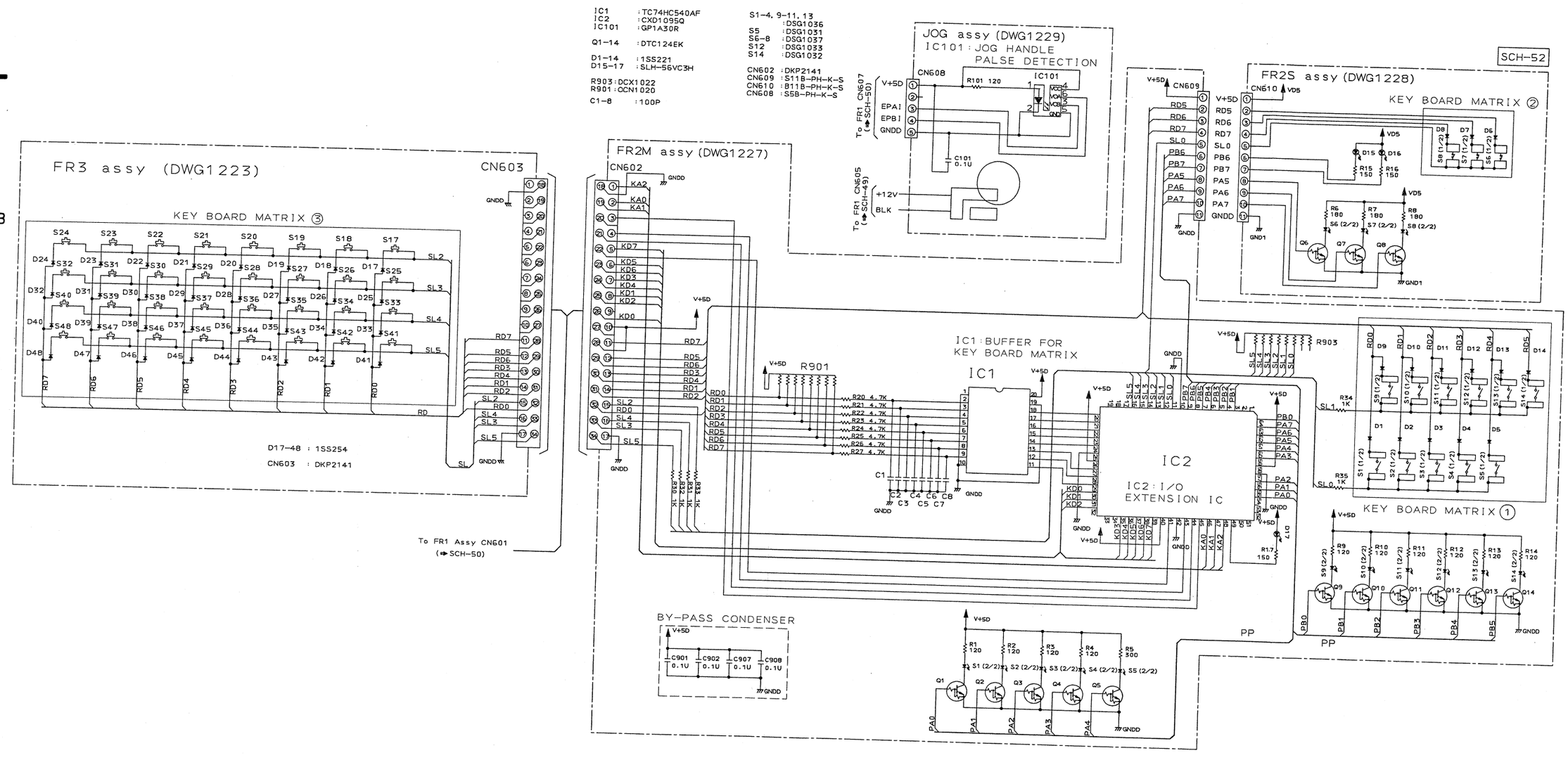
SCH-51

FR1 assy (2/2) (DWG1369) E.L CONTROL SIGNAL GENERATION SECTION



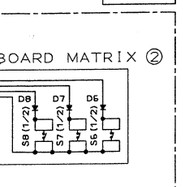
IC21~24	TC74HC74AF	Q3	DTA124EK
IC25, 29, 30	TC74HC161AF	Q4	2SD669A
IC26	TC74HC20AF		
IC27	TC74HC164AF	D3	S5277D
IC28	TC74HC160AF	D4	11ES2
IC31	TC74HC32AF	D5	1SS254
IC32, 34	TC74HC08AF		
IC33, 35	TC74HC04AF	X2	DSS1021
IC40, 41	TC74HC573AF		
IC42, 43	TC74HC245AF	F1~3	VTH1001
IC44~47	HM62256LFP-8T	F4, F6	DTF1013
IC48, 49	TC74HC165AF		
IC50	PQ12RF11		

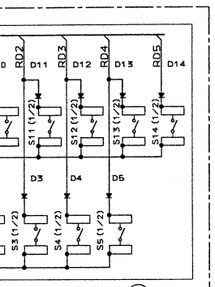
4.30 FR3 ASSY、FR2M ASSY、FR2S ASSY AND JOG ASSY



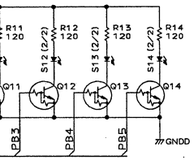
SCH-52

BOARD MATRIX ②

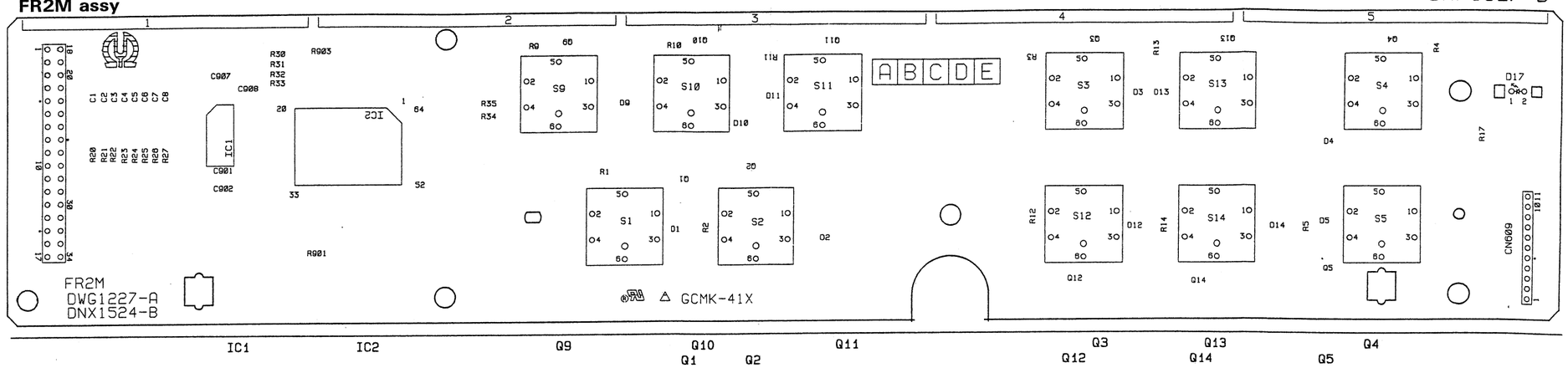




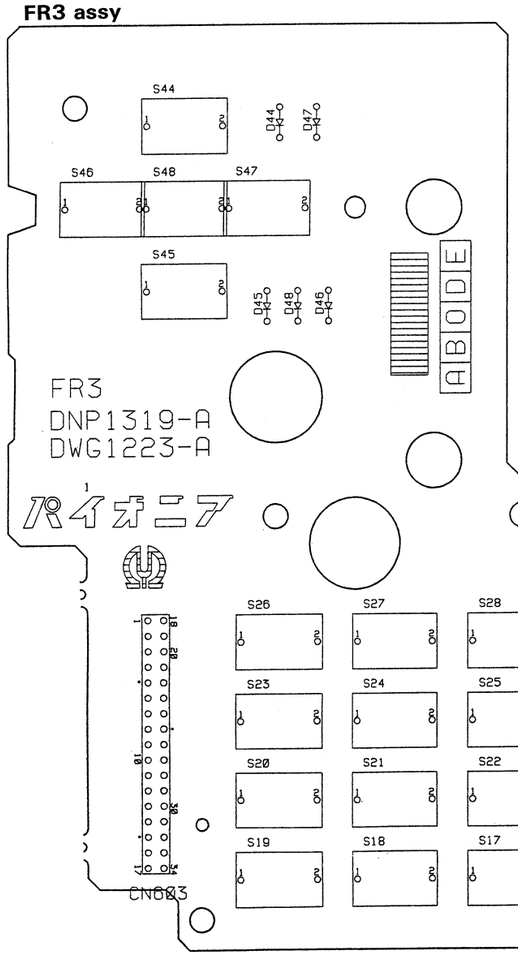
BOARD MATRIX ①



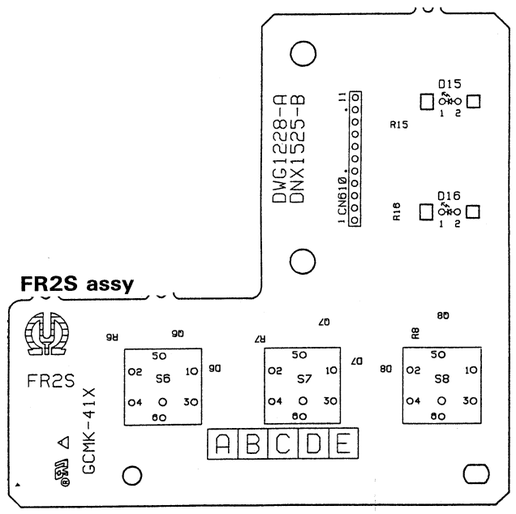
FR2M assy



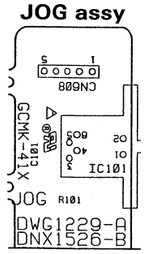
FR3 assy

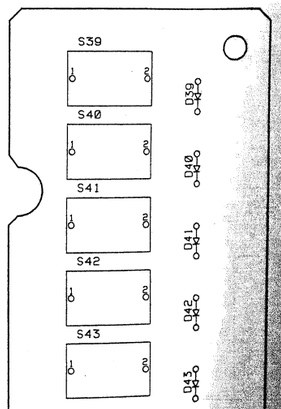


FR2S assy



JOG assy





GCMK-18X

SCH-52

■ Wave Forms

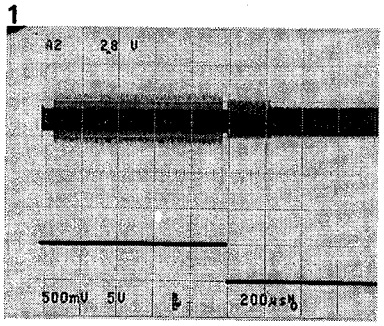
● ADEM Assy

INPUT : COLOR BAR, F_{NO}=100, COMPOSITE INPUT (Y, R−Y, B−Y) PB MODE

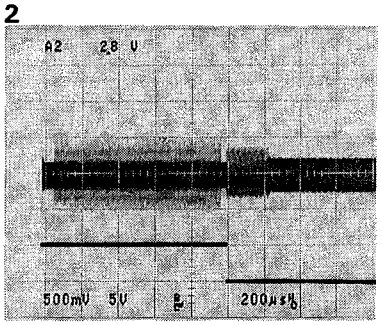
No.	OBSERVATION POINT	SIGNAL NAME	V / div	T / div	OFFSET VOLTAGE	REMARKS
1	TP1	PBA	0.5 [V]	200 [μs]		CH1
2	TP5	AGC	0.5 [V]	200 [μs]		CH1
3	TP7	RFN	1 [V]	200 [μs]		CH1
4	TP10	ATC	0.1 [V]	200 [μs]		CH1
5	TP35	PLL	2 [V]	200 [μs]		CH1
6	TP14	XER	2 [V]	200 [μs]		CH1
1～6	TP16	AREA	5 [V]	200 [μs]		CH2

● Waveform photographs : CH1−Upper row.
CH2−Lower row.

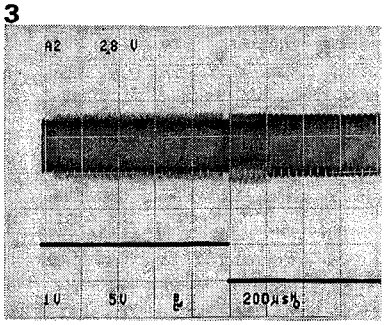
1



2



3



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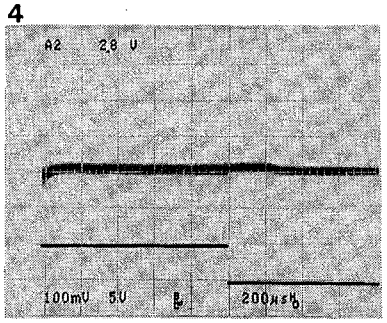

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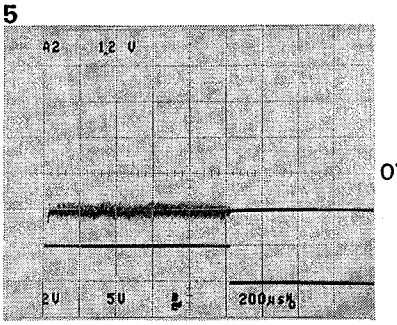

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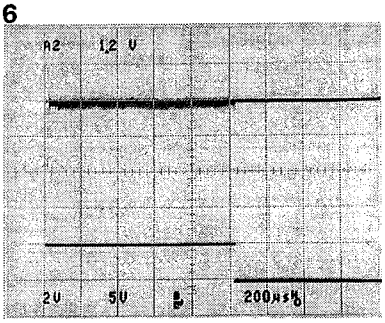

● VDEC Assy

INPUT : COLOR BAR, COMPOSITE INPUT (Y, R−Y, B−Y) EE MODE

No.	OBSERVATION POINT	SIGNAL NAME	V / div	T / div	OFFSET VOLTAGE	REMARKS
1	IC44−Pin 95	SGHD	2.0 [V]	50 [μs]	—	(CN1−A5)
2	Q8 Drain	PBTCIV	1.0 [V]	10 [μs]	—	(CN1−B5)
3	IC44−Pin 99	SGF	2.0 [V]	5 [ms]	—	(CN1−B6)
4	IC44−Pin 96	SGVD	2.0 [V]	5 [ms]	—	(CN1−B5)
5	TP14	PBB−Y	0.2 [V]	10 [μs]	−0.6 [V]	
6	TP15	PBR−Y	0.2 [V]	10 [μs]	−0.6 [V]	
7	TP16	PB−Y	0.2 [V]	10 [μs]	−0.2 [V]	
8	TP1		1.0 [V]	10 [μs]	—	
9	IC12−Pin 6	TSYNI	2.0 [V]	20 [μs]	—	
10	IC44−Pin 40	TREF	2.0 [V]	10 [μs]	—	
11	IC44−Pin 43	CLP	2.0 [V]	20 [μs]	—	
12	IC38−Pin 8	NYC	2.0 [V]	20 [μs]	—	
13	IC38−Pin 7	AWVN	2.0 [V]	20 [μs]	—	
14	IC38−Pin 6	STPN	2.0 [V]	20 [μs]	—	
15	IC38−Pin 5	STGN	2.0 [V]	20 [μs]	—	
16	IC44−Pin 112	WASB	2.0 [V]	0.5 [ms]	—	(CN2−A17)
17	IC44−Pin 110	WVDA	2.0 [V]	5 [ms]	—	(CN2−A19)
18	IC44−Pin 111	PCMA	2.0 [V]	5 [ms]	—	(CN2−A18)
19	CN2−B4	PERRA	0.2 [V]	10 [ms]	0.3 [V]	
20	CN2−B5	PERRB	0.2 [V]	10 [ms]	0.2 [V]	
21	IC44−Pin 114	PCMB	2.0 [V]	5 [ms]	—	(CN2−B17)
22	IC44−Pin 113	WVDB	2.0 [V]	5 [ms]	—	(CN2−B18)
23	IC44−Pin 109	WASA	2.0 [V]	0.5 [ms]	—	(CN2−B19)
24	IC44−Pin 105	STZ	2.0 [V]	20 [μs]	—	
25	IC44−Pin 106	SSP	2.0 [V]	20 [μs]	—	
26	TP300		2.0 [V]	20 [μs]	—	
27	X2−Pin 8		1.0 [V]	0.1 [μs]	—	
28	IC44−Pin 37	PPE	2.0 [V]	0.1 [μs]	—	
29	TP302		0.2 [V]	10 [ms]	2.3 [V]	
30	TP11		0.5 [V]	10 [ms]	3.2 [V]	
31	X3−Pin 8		0.5 [V]	50 [ns]	1.8 [V]	

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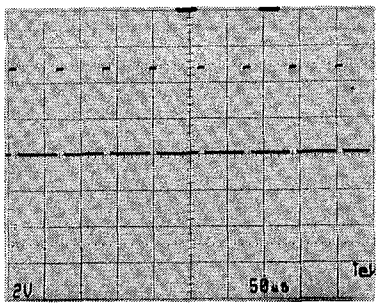

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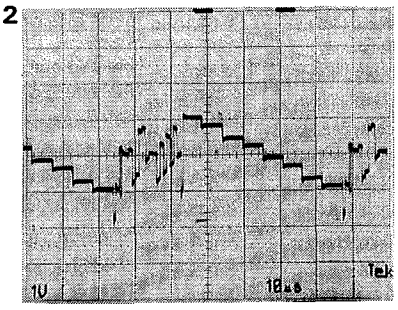

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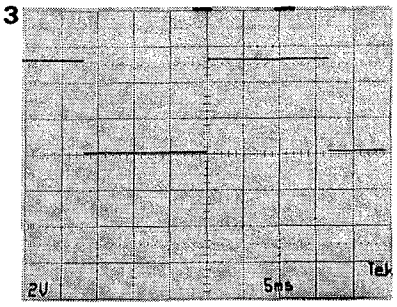

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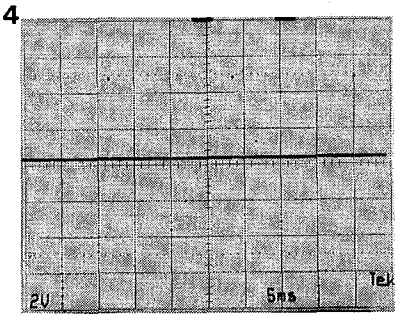

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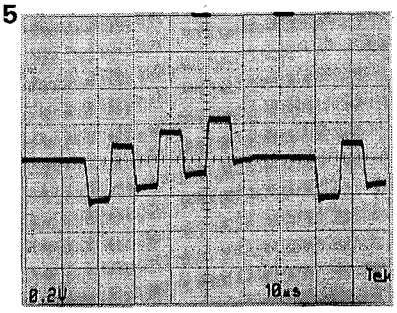

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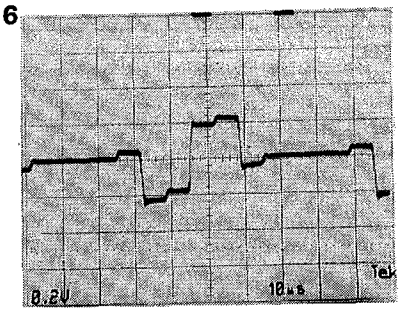

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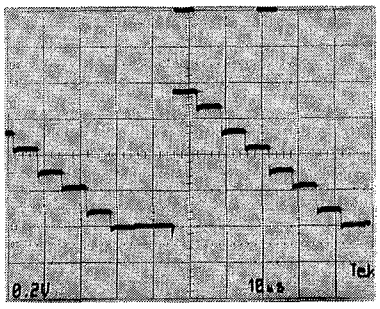

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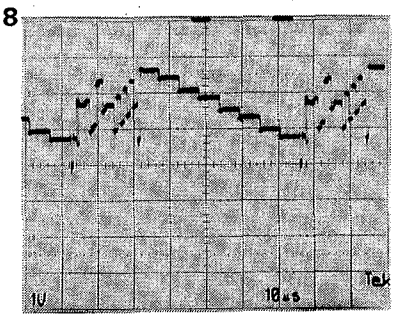

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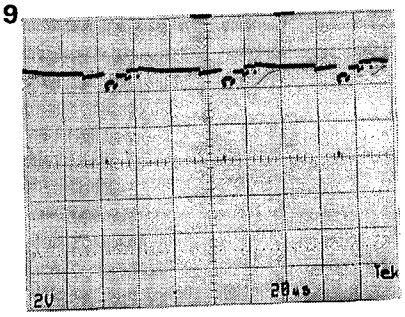

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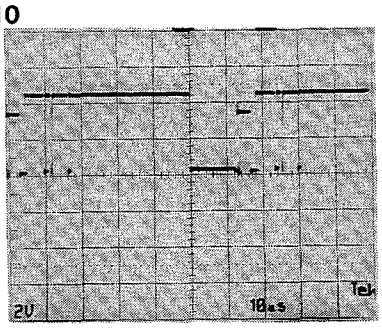

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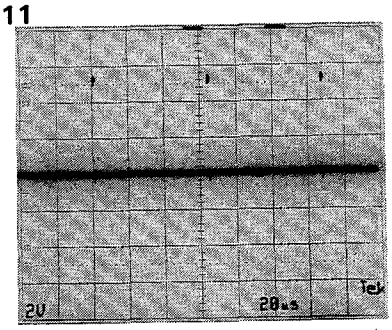

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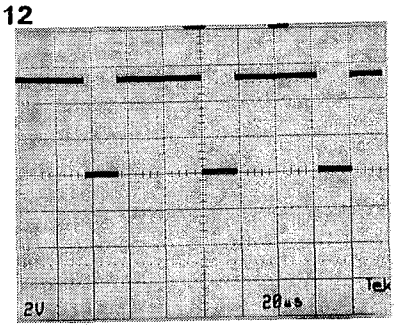

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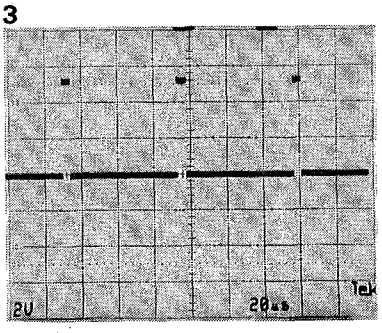

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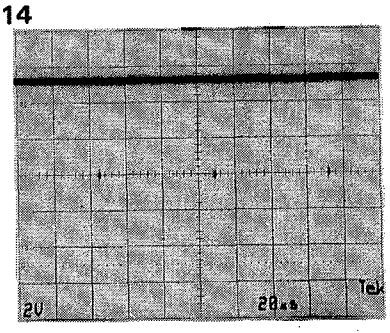

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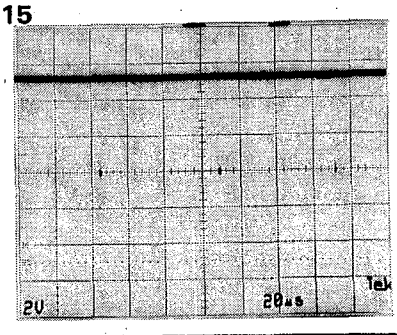

● VDEC Assy

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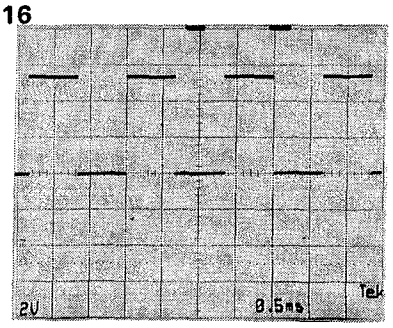

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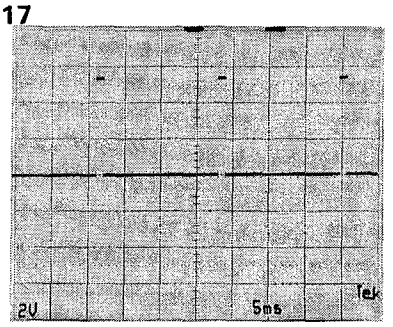

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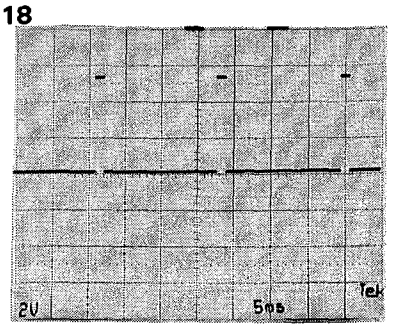

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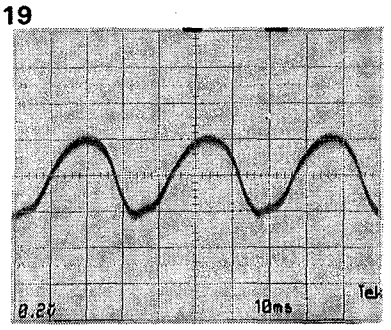

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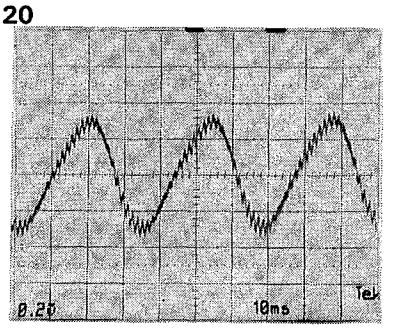

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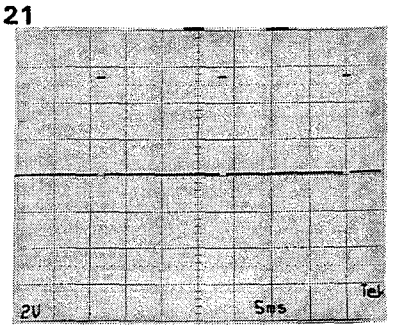

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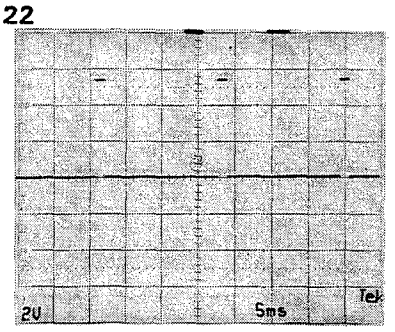

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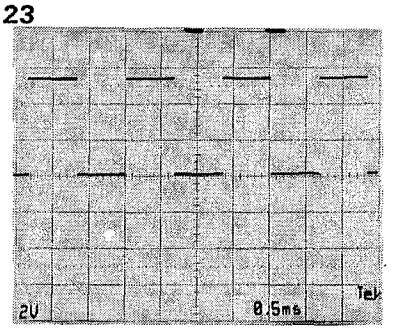

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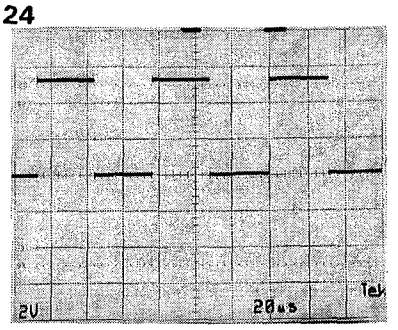

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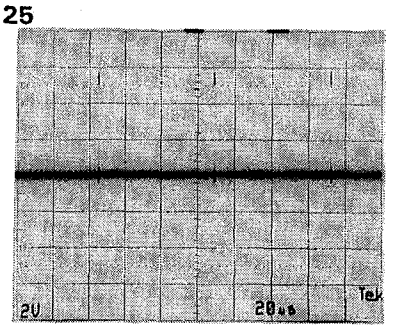

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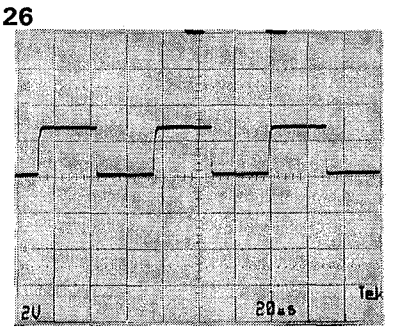

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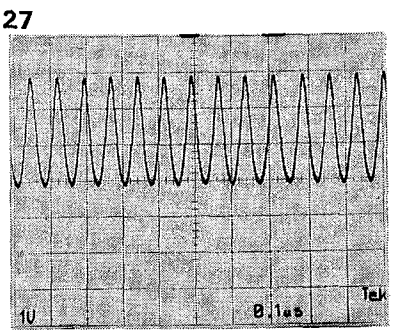

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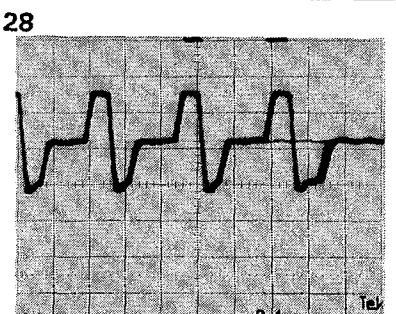

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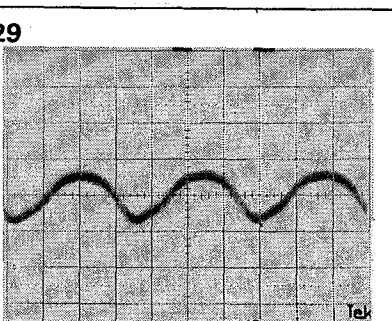

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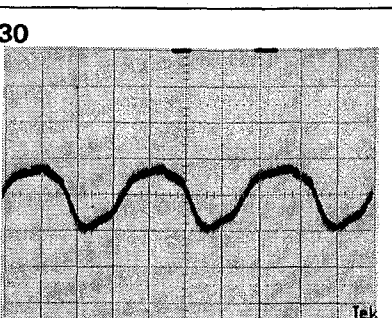

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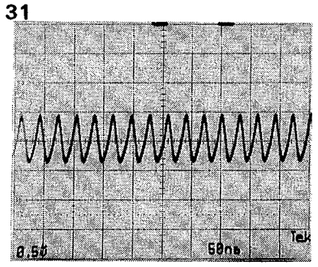

● VAR1 Assy

INPUT : COLOR BAR, COMPOSITE INPUT (Y, R−Y, B−Y) EE MODE

No.	OBSERVATION POINT	SIGNAL NAME	V / div	T / div	OFFSET VOLTAGE	REMARKS
1	IC202−Pin 3	CV IN	0.5 [V]	10 [μs]	−0.2 [V]	(CN309−A17)
2	Q204 Emitter		0.5 [V]	10 [μs]	−1.5 [V]	
3	IC202−Pin 6	CLMP	0.5 [V]	10 [μs]	−0.2 [V]	
4	IC203−Pin 5		2.0 [V]	20 [μs]	—	
5	IC206−Pin 15		0.5 [V]	10 [μs]	—	
6	IC206−Pin 10		2.0 [V]	20 [μs]	—	
7	IC204−Pin 4	BMUTE	2.0 [V]	20 [μs]	—	
8	IC309−Pin 10	D CSYNC	2.0 [V]	20 [μs]	—	
9	IC301−Pin 6		1.0 [V]	10 [μs]	—	
10	IC310−Pin 5		0.2 [V]	10 [μs]	3.0 [V]	
11	TP302		2.0 [V]	50 [ns]	—	
12	IC313−Pins 6, 8		2.0 [V]	50 [ns]	—	
13	Q301 Emitter	DECY	0.5 [V]	10 [ns]	—	(CN309−A23)
14	Q303 Emitter	DECPb	0.5 [V]	10 [ns]	—	(CN309−A19)
15	Q302 Emitter	DECPr	0.5 [V]	10 [ns]	—	(CN309−A21)

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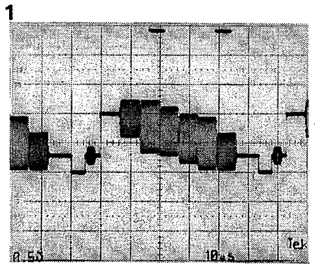

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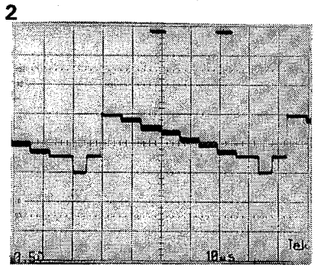

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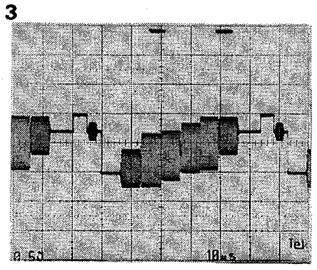

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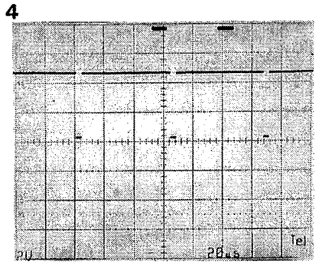

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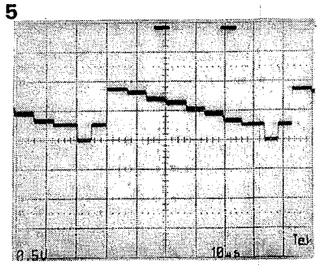

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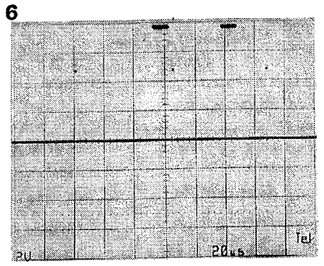

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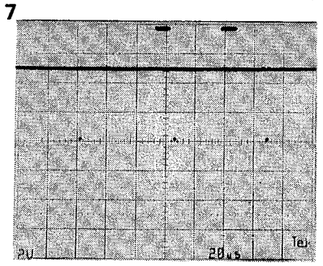

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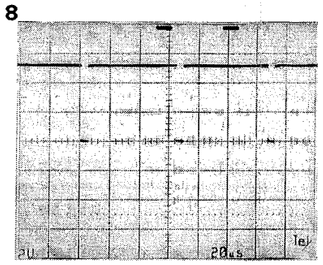

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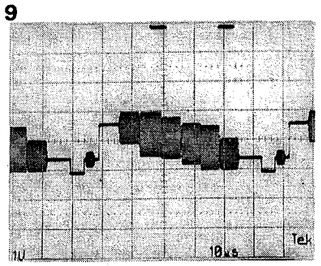

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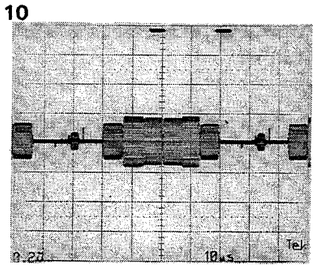

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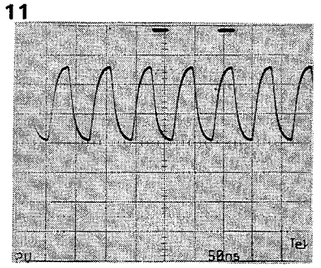

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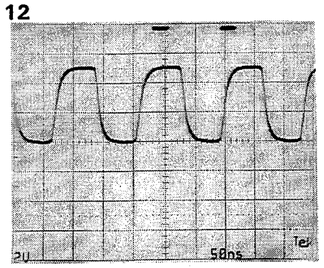

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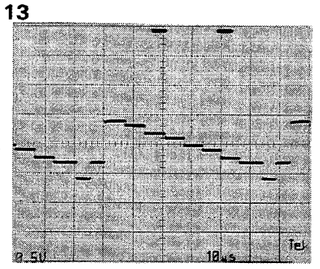

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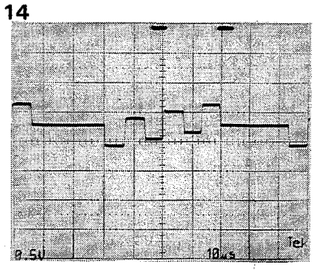

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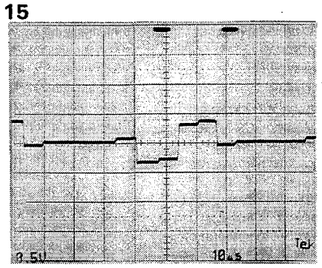
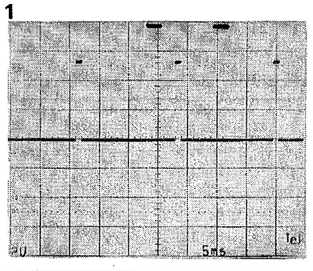


● ADDC Assy

INPUT : COLOR BAR, COMPOSITE INPUT (Y, R−Y, B−Y) EE MODE

No.	OBSERVATION POINT	SIGNAL NAME	V / div	T / div	OFFSET VOLTAGE	REMARKS
1	IC18−Pin 81	WV	2.0 [V]	5 [ms]	—	(CN1−A9)
2	IC18−Pin 44	PCMA2	2.0 [V]	5 [ms]	—	(CN1−A16)
3	IC18−Pin 70	WVDA2	2.0 [V]	5 [ms]	—	(CN1−A17)
4	IC19−Pin 9	WSB	2.0 [V]	0.5 [ms]	—	(CN1−A18)
5	IC19−Pin 14	PCMA	2.0 [V]	5 [ms]	—	(CN1−A19)
6	IC19−Pin 16	WVDA	2.0 [V]	5 [ms]	—	(CN1−A20)
7	TP10		2.0 [V]	10 [ms]	—	
8	TP7		2.0 [V]	10 [ms]	—	
9	TP17		2.0 [V]	0.5 [ms]	—	
10	TP16		2.0 [V]	0.5 [ms]	—	
11	TP8		2.0 [V]	0.5 [ms]	—	
12	TP9		2.0 [V]	0.5 [ms]	—	
13	TP5		0.2 [V]	10 [ms]	3.5 [V]	
14	TP12		2.0 [V]	0.2 [ms]	—	
15	IC10−Pin 7		2.0 [V]	20 [μs]	—	
16	TP4		2.0 [V]	20 [ms]	—	
17	TP2		2.0 [V]	5 [μs]	—	
18	TP13		2.0 [V]	5 [μs]	—	
19	TP18		2.0 [V]	0.2 [ms]	—	
20	TP3		0.2 [V]	10 [ms]	3.5 [V]	
21	X2−Pin 5		1.0 [V]	50 [ns]	—	

1



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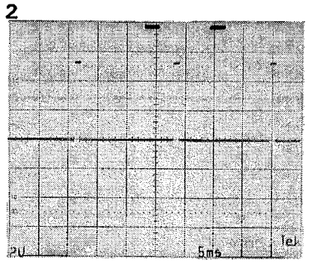

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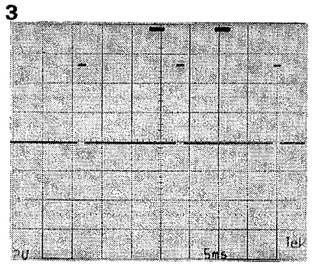

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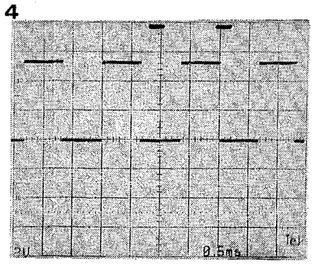

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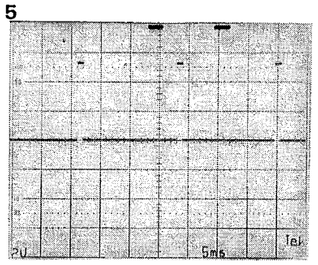

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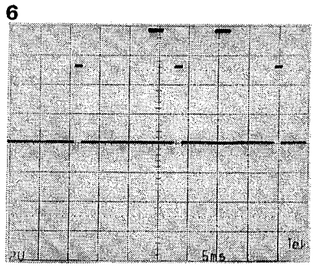

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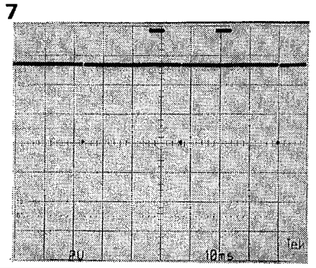

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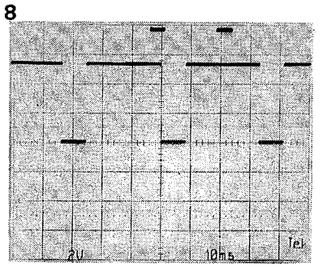

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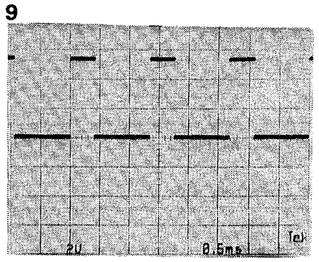

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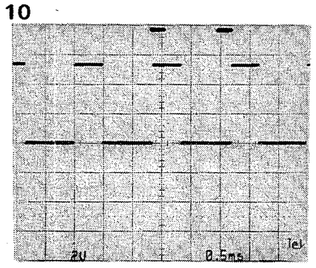

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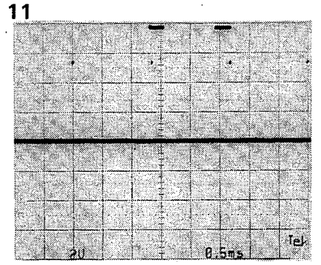

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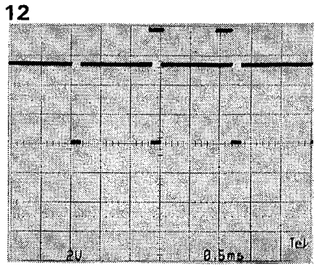

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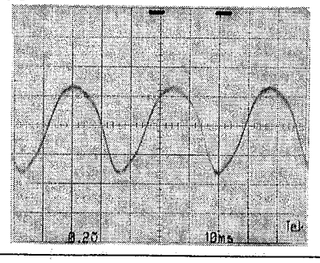

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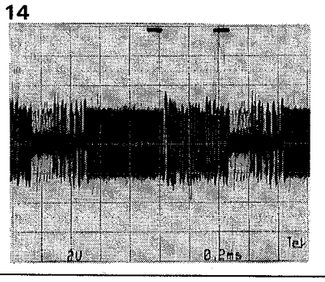

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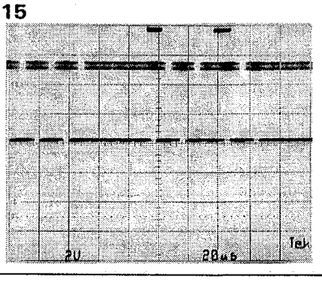

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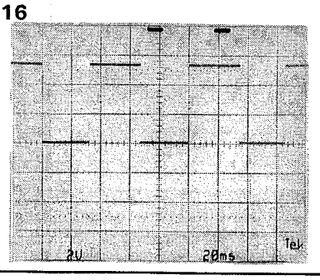

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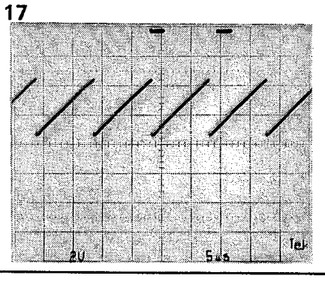

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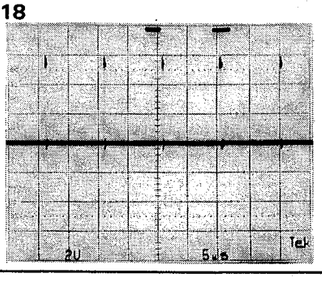
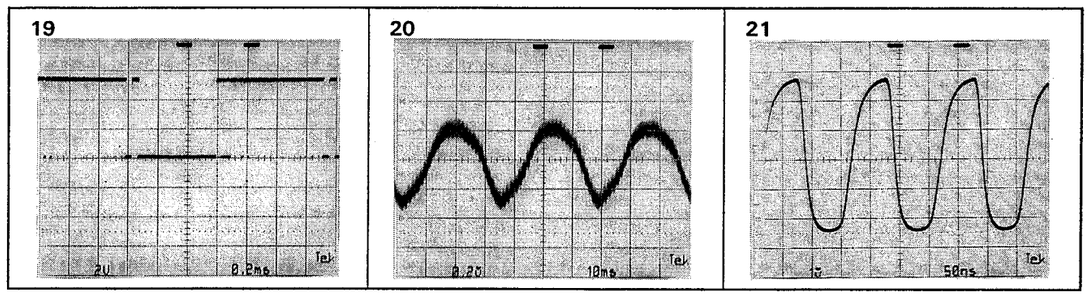
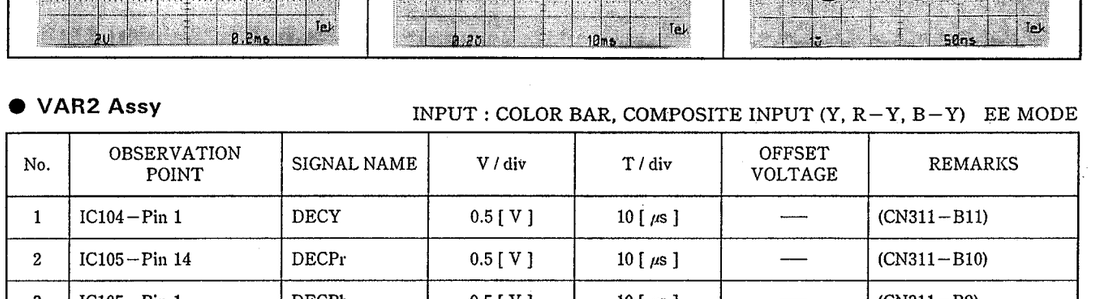


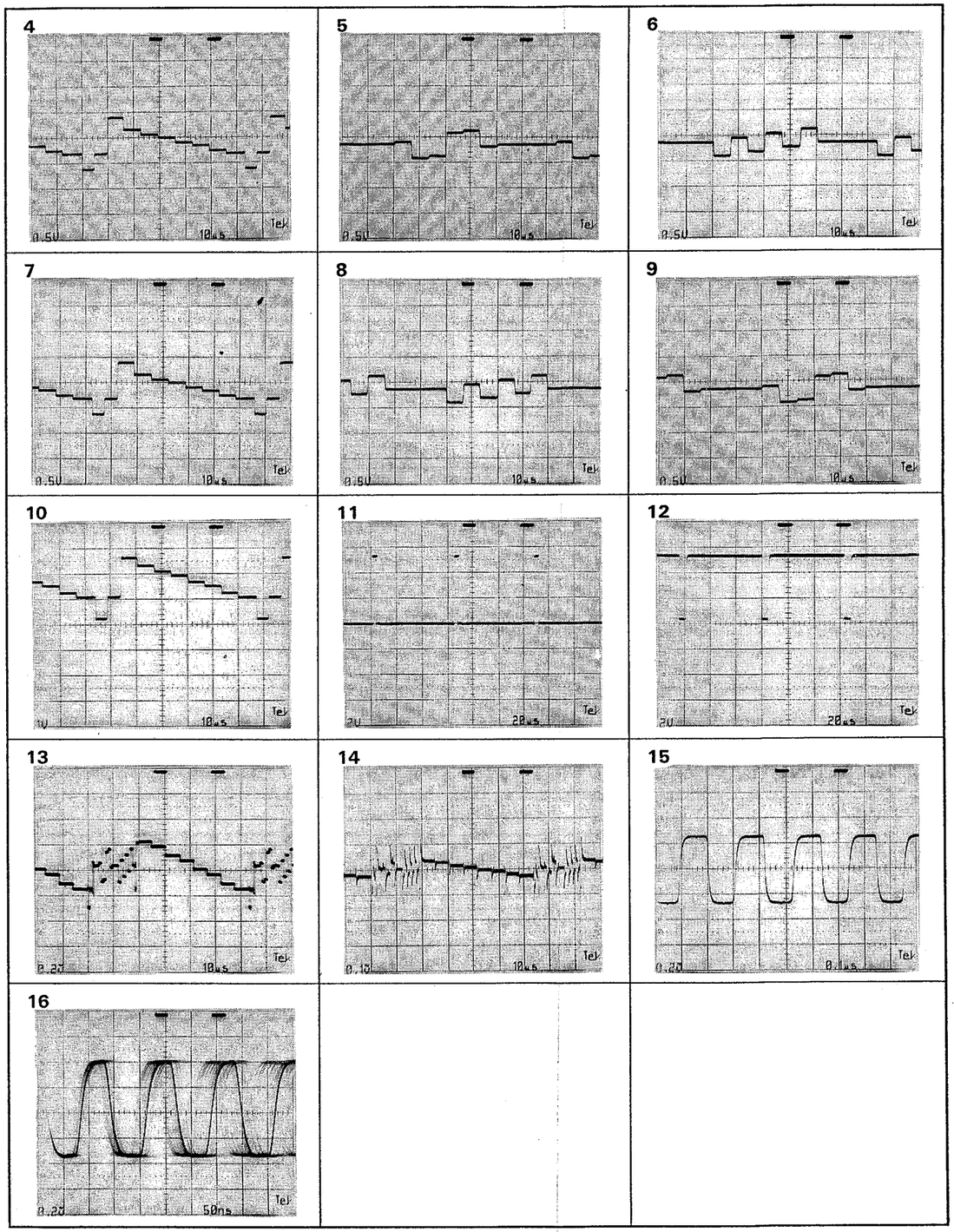


● VAR2 Assy

INPUT : COLOR BAR, COMPOSITE INPUT (Y, R−Y, B−Y) EE MODE

No.	OBSERVATION POINT	SIGNAL NAME	V / div	T / div	OFFSET VOLTAGE	REMARKS
1	IC104−Pin 1	DECY	0.5 [V]	10 [μs]	—	(CN311−B11)
2	IC105−Pin 14	DECPr	0.5 [V]	10 [μs]	—	(CN311−B10)
3	IC105−Pin 1	DECPb	0.5 [V]	10 [μs]	—	(CN311−B9)
4	IC104−Pin 4	Y	0.5 [V]	10 [μs]	—	SW101 : B (M2)
5	IC105−Pin 11	Pr	0.5 [V]	10 [μs]	—	SW102 : B (M2)
6	IC105−Pin 4	Pb	0.5 [V]	10 [μs]	—	SW103 : B (M2)
7	IC106−Pin 6	SWDY	0.5 [V]	10 [μs]	—	(CN311−B21)
8	IC107−Pin 6	SWDPb	0.5 [V]	10 [μs]	—	(CN311−B19)
9	IC108−Pin 6	SWDPr	0.5 [V]	10 [μs]	—	(CN311−B20)
10	IC201−Pin 3		1.0 [V]	10 [μs]	—	
11	IC202−Pin 11		2.0 [V]	20 [μs]	—	
12	IC202−Pin 15	C SYNC R	2.0 [V]	20 [μs]	—	(CN311−B23)
13	IC301−Pin 47		0.2 [V]	10 [μs]	—	
14	TP301		0.1 [V]	10 [μs]	—	
15	TP303		0.2 [V]	0.1 [μs]	2.0 [V]	
16	CN311−B29, B31	EE RFV REC RFV	0.2 [V]	50 [ns]	—	

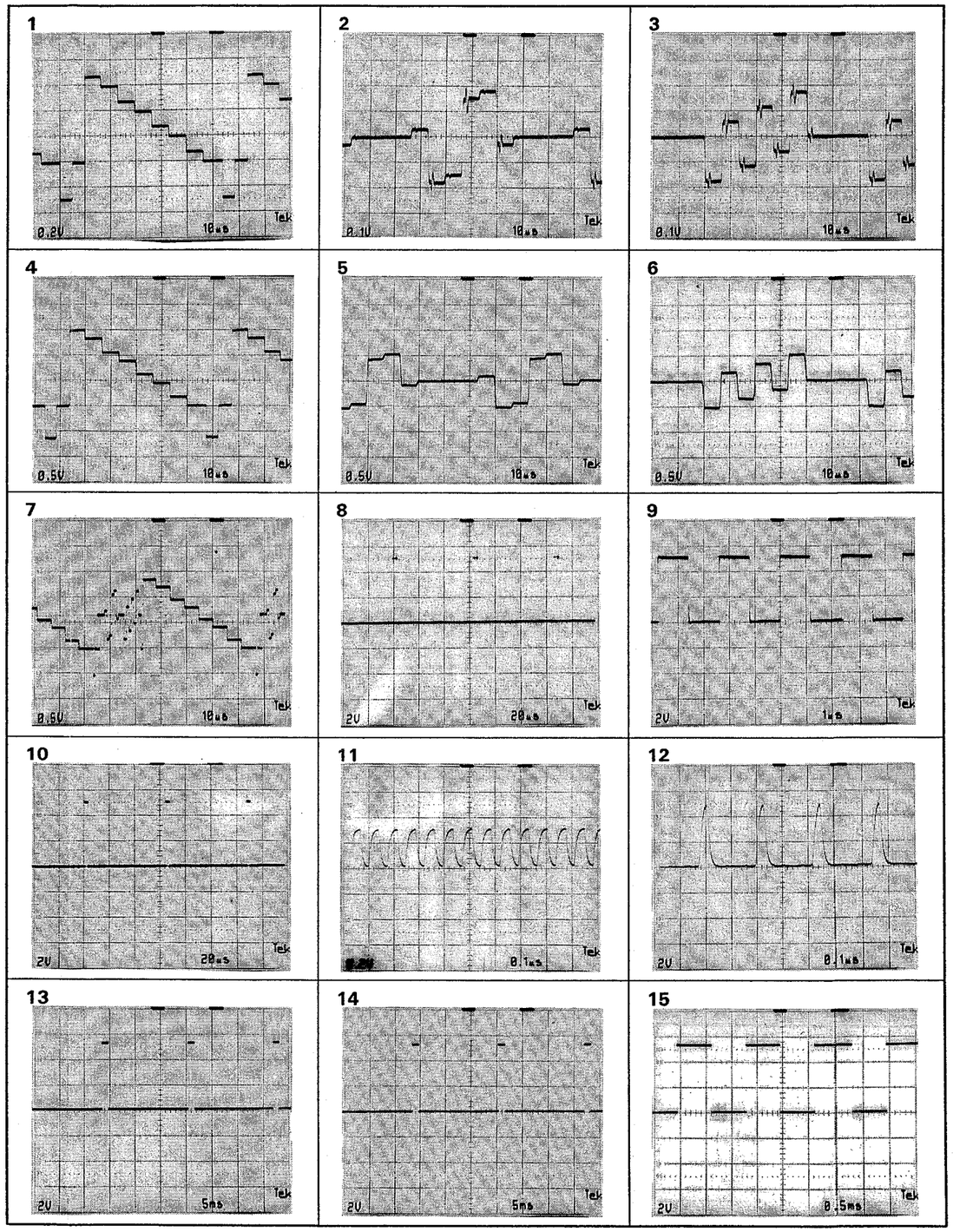




● **VENC Assy**

INPUT : COLOR BAR, COMPOSITE INPUT (Y, R−Y, B−Y) EE MODE

No.	OBSERVATION POINT	SIGNAL NAME	V / div	T / div	OFFSET VOLTAGE	REMARKS
1	Q4 Emitter	SWDY	0.2 [V]	10 [μs]	−0.8 [V]	
2	Q8 Emitter	SWD R−Y	0.1 [V]	10 [μS]	−0.8 [V]	
3	Q12 Emitter	SWD B−Y	0.1 [V]	10 [μS]	−0.8 [V]	
4	TP4 (TP209)		0.5 [V]	10 [μS]	0.7 [V]	
5	TP6 (TP211)		0.5 [V]	10 [μS]	0.9 [V]	
6	TP8 (TP213)		0.5 [V]	10 [μS]	0.9 [V]	
7	TP10		0.5 [V]	10 [μS]	0.6 [V]	
8	IC28−Pin 14	SYD	2.0 [V]	20 [μs]	—	
9	IC9, 10, 11−Pin 2	YOS, ROS, BOS	2.0 [V]	1 [μs]	—	
10	IC28−Pin 62	CLMP	2.0 [V]	20 [μs]	—	
11	IC28−Pin 59	ACY	0.2 [V]	0.1 [μs]	—	
12	IC28−Pin 58	ACC	2.0 [V]	0.1 [μs]	—	
13	IC28−Pin 112	WVDA	2.0 [V]	5 [ms]	—	(CN2−A19)
14	IC28−Pin 98	RECVD	2.0 [V]	5 [ms]	—	(CN2−A3)
15	IC28−Pin 113	WASA	2.0 [V]	0.5 [ms]	—	(CN2−B19)
16	IC28−Pin 99	RECFF	2.0 [V]	10 [ms]	—	(CN2−B3)
17	TP201		2.0 [V]	20 [μs]	—	
18	TP202		2.0 [V]	20 [μs]	—	
19	X1−Pin 8		2.0 [V]	0.1 [μs]	—	
20	IC35−Pin 4		2.0 [V]	20 [μs]	—	
21	IC28−Pin 8	TTZ	2.0 [V]	20 [μs]	—	
22	TP204		2.0 [V]	20 [μs]	—	
23	TP205		2.0 [V]	0.5 [ms]	—	
24	X2−Pin 8		1.0 [V]	0.1 [μs]	—	
25	TP11		0.5 [V]	10 [ms]	4.0 [V]	



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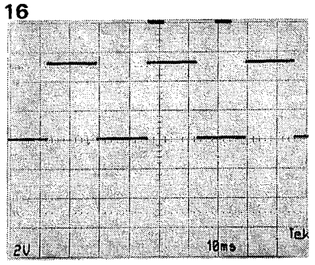

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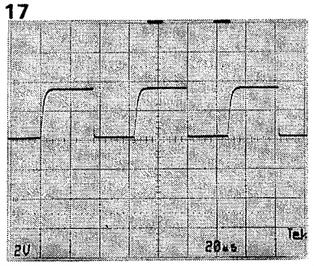

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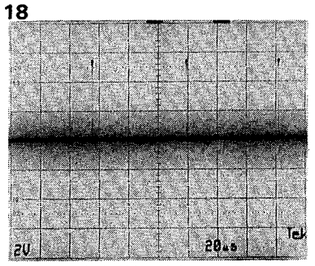

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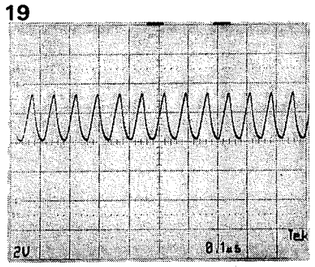

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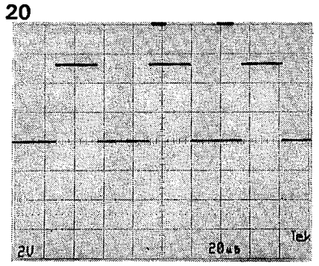

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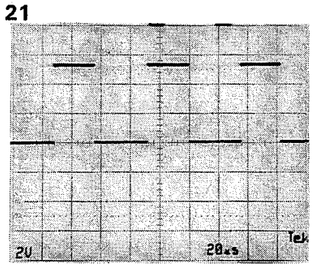

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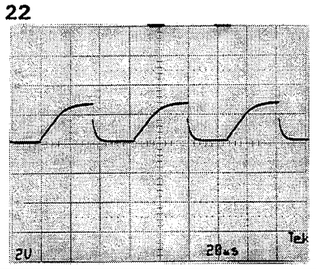

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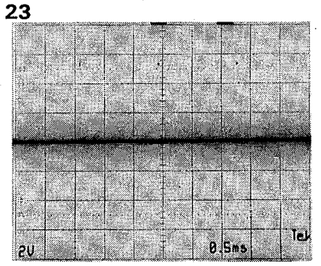

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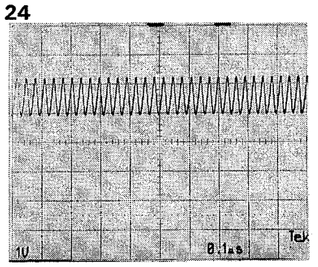

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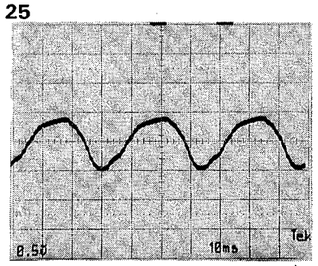
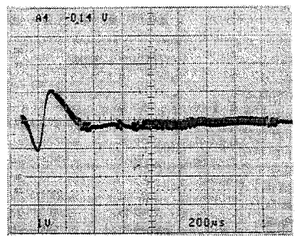


● SVAW Assy

INPUT : COLOR BAR, COMPOSITE INPUT (Y, R−Y, B−Y) EE MODE

No.	OBSERVATION POINT	SIGNAL NAME	V / div	T / div	TRACKING O / C	REMARKS
1	TP10	TRACKING ERROR	1.0 [V]	200 [µs]	CLOSE	PAUSE JUMP WAVEFORM
2	TP10	TRACKING ERROR	1.0 [V]	5 [ms]	OPEN	
3	TP5	LR	500 [mV]	5 [ms]	OPEN	
4	TP5	LR	500 [mV]	200 [µs]	CLOSE	
5	TP4	FOCUS ERROR	500 [mV]	5 [ms]	OPEN	
6	TP4	FOCUS ERROR	500 [mV]	200 [µs]	CLOSE	
7	TP11	TRACKING ERROR	500 [mV]	5 [ms]	OPEN	
8	TP30	TRACKING ERROR	500 [mV]	100 [µs]	CLOSE	

1



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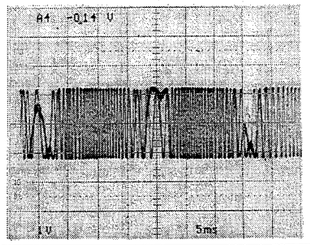

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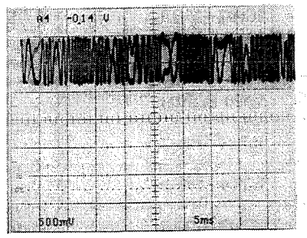

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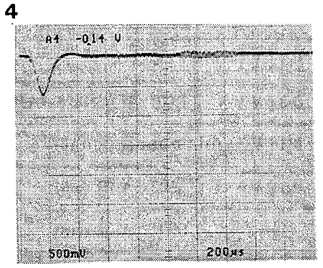

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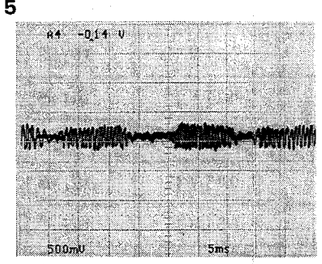

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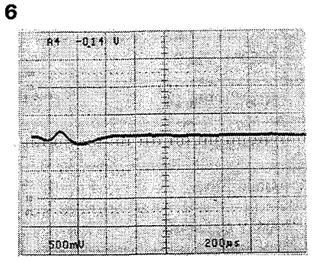

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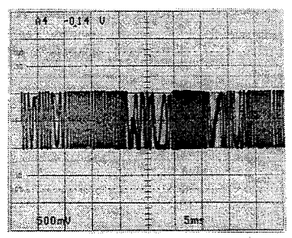

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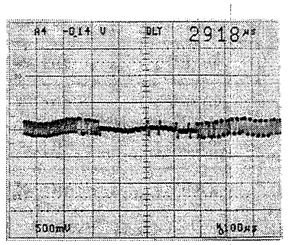
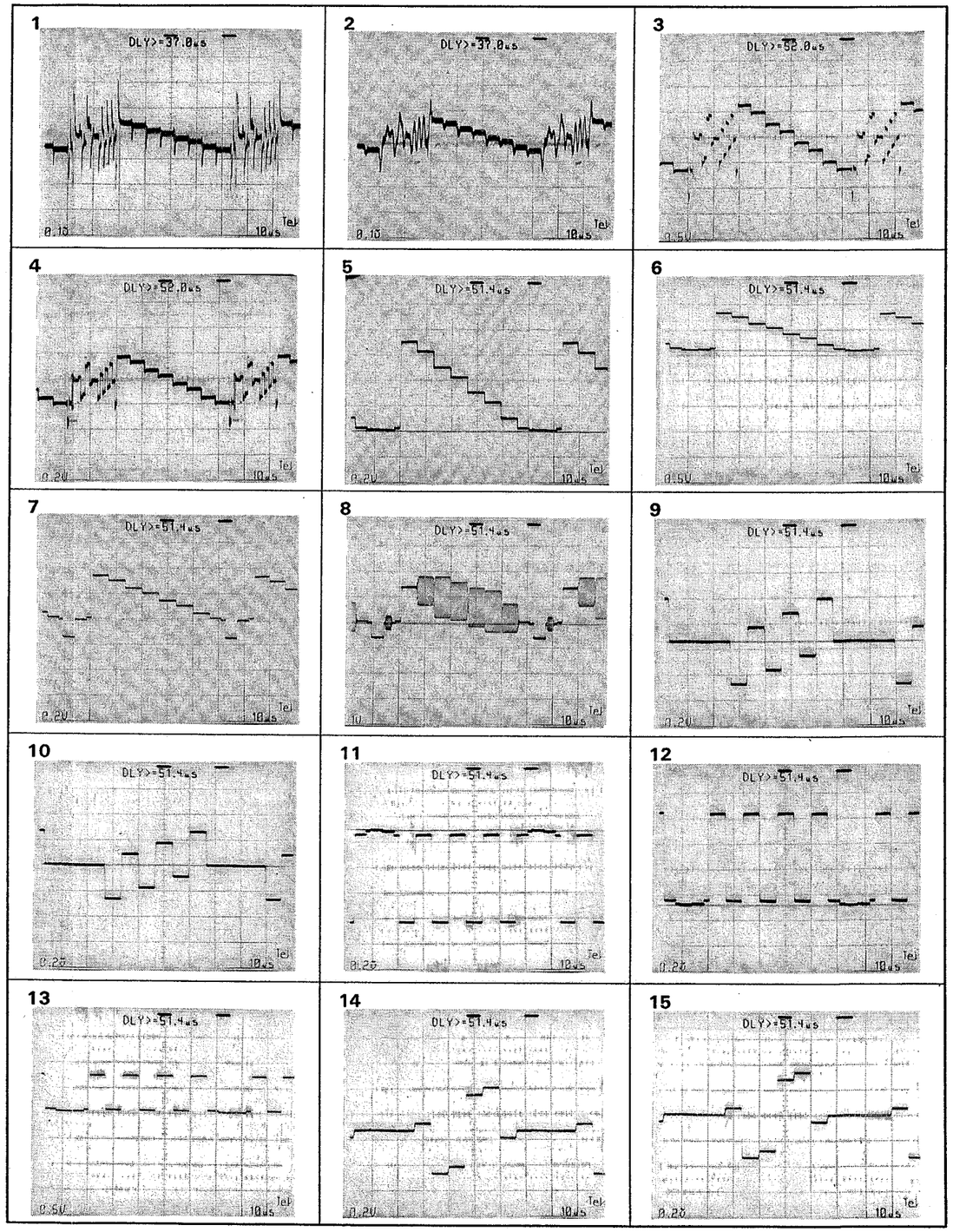


● VAPB Assy (1/2)

INPUT : COLOR BAR, COMPOSITE INPUT (Y, R−Y, B−Y) EE MODE

No.	OBSERVATION POINT	SIGNAL NAME	V / div	T / div	OFFSET VOLTAGE	REMARKS
1	Q306 Emitter		0.1 [V]	10 [μS]	1.8 [V]	
2	Q312 Emitter		0.1 [V]	10 [μS]	0.7 [V]	
3	IC402−Pin 6	PB TCIV	0.5 [V]	10 [μS]	—	(CN328−B8)
4	IC402−Pin 11		0.2 [V]	10 [μS]	—	
5	Q501 Base		0.2 [V]	10 [μS]	—	
6	Q505 Emitter		0.5 [V]	10 [μS]	—	
7	IC502−Pin 3		0.2 [V]	10 [μS]	—	
8	Q509 Base	V1 OUT	1.0 [V]	10 [μS]	—	(CN328−B29)
9	Q513 Base	PB B−Y	0.2 [V]	10 [μS]	—	
10	Q516 Base		0.2 [V]	10 [μS]	2.4 [V]	
11	IC503−Pin 2		0.2 [V]	10 [μS]	1.6 [V]	
12	IC503−Pin 14		0.2 [V]	10 [μS]	1.6 [V]	
13	IC507−Pin 3	B OUT	0.5 [V]	10 [μS]	—	RGB : H (CN326−A10)
14	Q517 Base	PB R−Y	0.2 [V]	10 [μS]	—	CN328−B24
15	Q520 Emitter		0.2 [V]	10 [μS]	−0.8 [V]	
16	IC504−Pin 2		0.2 [V]	10 [μS]	1.6 [V]	
17	IC504−Pin 14		0.2 [V]	10 [μS]	1.6 [V]	
18	IC507−Pin 1	R OUT	0.2 [V]	10 [μS]	0.3 [V]	RGB : H (CN326−A10)
19	IC505−Pin 14		0.2 [V]	10 [μS]	1.6 [V]	
20	IC505−Pin 2		0.2 [V]	10 [μS]	0.9 [V]	
21	IC507−Pin 14	G OUT	0.2 [V]	10 [μS]	0.3 [V]	RGB : H (CN326−A10)
22	Q523 Base	B−Y	0.2 [V]	10 [μS]	0.4 [V]	S502 : A (B cam)
23	Q526 Base	R−Y	0.2 [V]	10 [μS]	0.3 [V]	S503 : A (B cam)
24	Q527 Collector		0.5 [V]	10 [μS]	—	S501 : A (B cam)
25	IC507−Pin 3	B−Y OUT	0.2 [V]	10 [μS]	—	RGB : L (CN326−A10)
26	IC507−Pin 1	R−Y OUT	0.2 [V]	10 [μS]	—	RGB : L (CN326−A10)
27	IC507−Pin 14	Y OUT	0.5 [V]	10 [μS]	—	RGB : L (CN326−A10)
28	IC501−Pin 14	VBS OUT	0.5 [V]	10 [μS]	—	(CN328−B20)
29	IC508−Pin 27	C SYNC	2.0 [V]	10 [μS]	—	
30	CN328−B19	CS OUT	2.0 [V]	10 [μS]	—	



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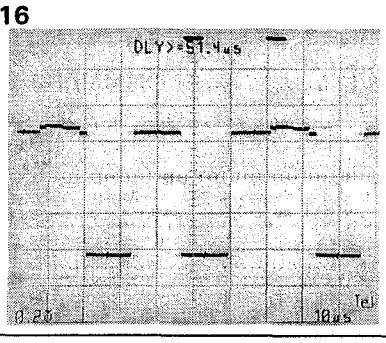

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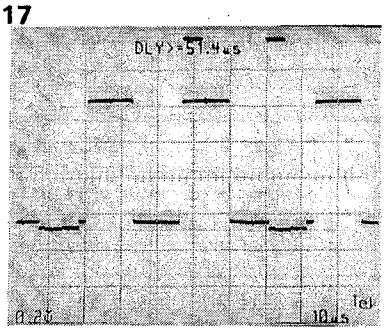

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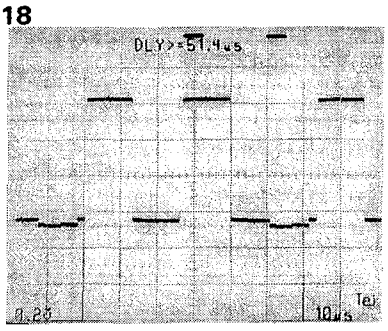

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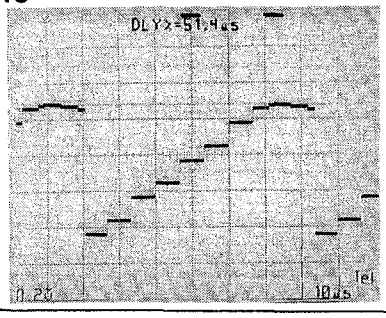

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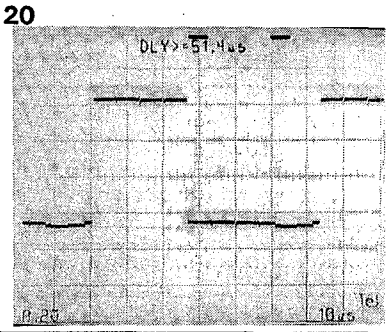

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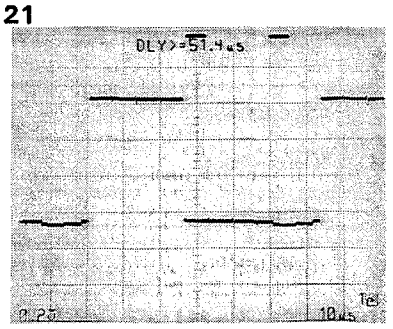

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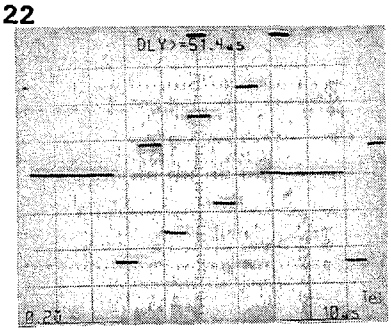

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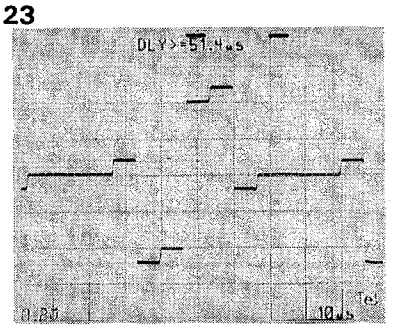

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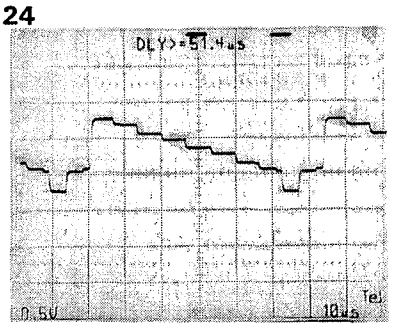

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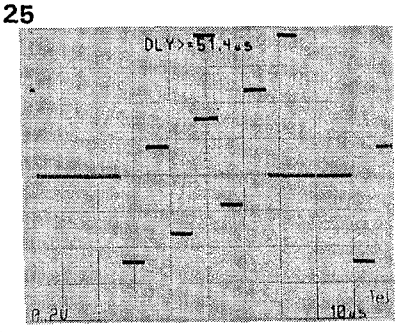

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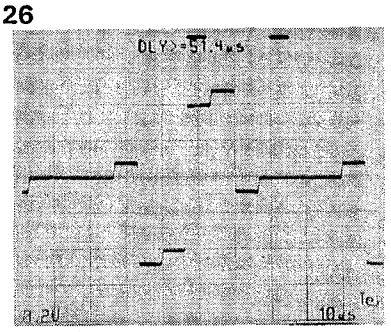

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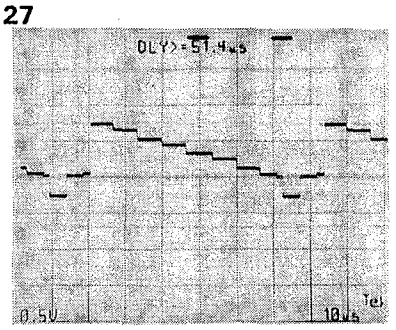

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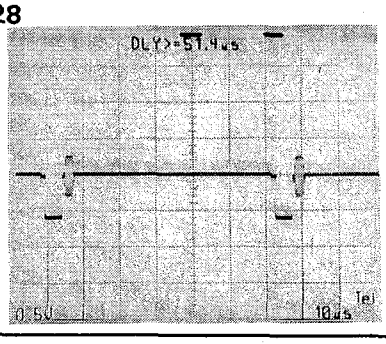

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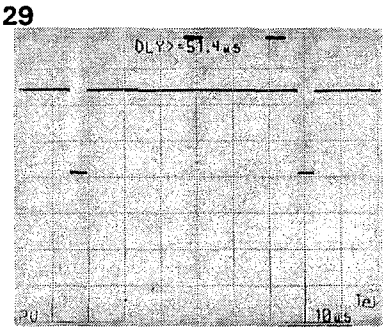

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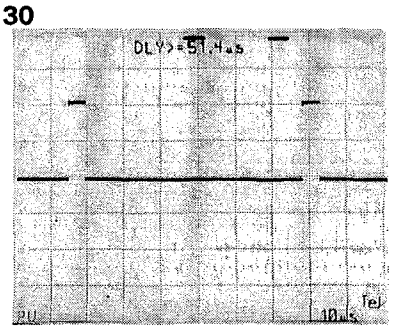
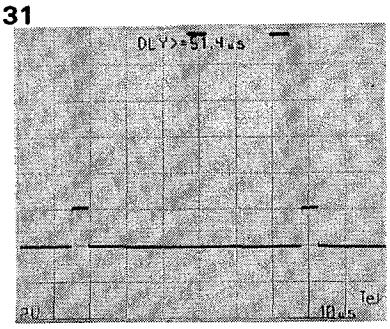


● VAPB Assy (2/2)

INPUT : COLOR BAR, COMPOSITE INPUT (Y, R−Y, B−Y) EE MODE

No.	OBSERVATION POINT	SIGNAL NAME	V / div	T / div	OFFSET VOLTAGE	REMARKS
31	Q532 Emitter		2.0 [V]	10 [μS]	—	
32	Q701 Emitter		0.5 [V]	10 [μS]	—	
33	Q703 Emitter		1.0 [V]	10 [μS]	6.2 [V]	
34	IC702−Pin 6		1.0 [V]	10 [μS]	2.0 [V]	
35	IC704−Pin 7		2.0 [V]	10 [μS]	—	
36	IC707−Pin 9		2.0 [V]	10 [μS]	—	
37	Q704 Emitter		0.2 [V]	10 [μS]	−0.6 [V]	
38	IC705−Pin 8		2.0 [V]	10 [μS]	—	
39	IC706−Pin 4		2.0 [V]	10 [μS]	—	
40	IC708−Pin 19	BFPP	2.0 [V]	10 [μS]	—	
41	IC708−Pin 24	WHD	2.0 [V]	10 [μS]	—	
42	IC708−Pin 26	C SYNC	2.0 [V]	10 [μS]	—	
43	IC708−Pin 25	SG VD	2.0 [V]	5 [ms]	—	
44	IC711−Pin 12		2.0 [V]	10 [μs]	—	
45	IC706−Pin 1		2.0 [V]	10 [μS]	—	
46	IC710−Pin 7		2.0 [V]	10 [μS]	—	
47	IC707−Pin 3		2.0 [V]	10 [μS]	—	
48	IC807−Pin 3		2.0 [V]	0.5 [μs]	—	
49	IC810−Pin 3		2.0 [V]	0.5 [μs]	—	
50	Q515 Emitter	B−Y	0.2 [V]	10 [μs]	2.7 [V]	
51	Q519 Emitter	R−Y	0.2 [V]	10 [μs]	2.0 [V]	
52	Q655 Emitter		0.5 [V]	10 [μS]	−1.0 [V]	
53	IC651−Pin 1		0.5 [V]	10 [μS]	—	
54	Q654 Emitter		1.0 [V]	10 [μS]	9.0 [V]	
55	Q658 Emitter		0.2 [V]	10 [μS]	—	

31



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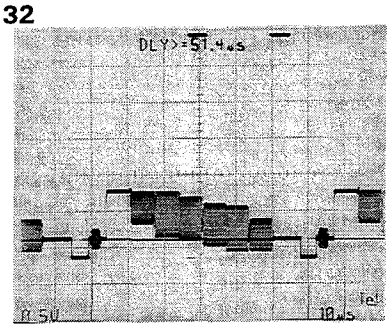

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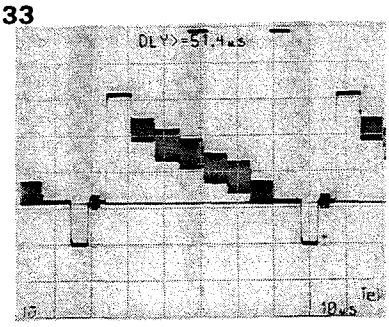

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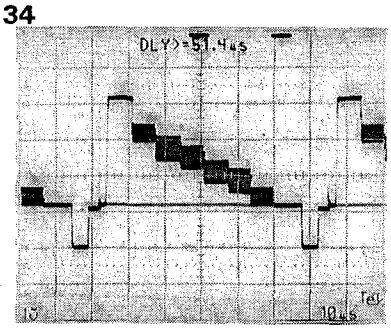

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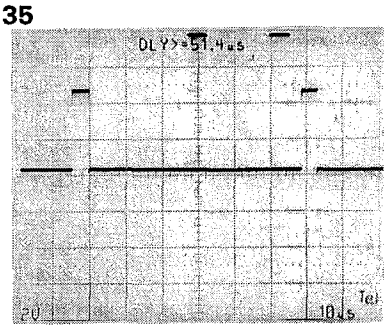

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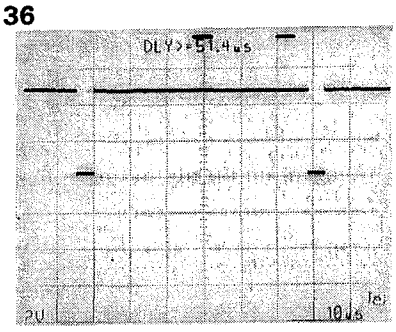

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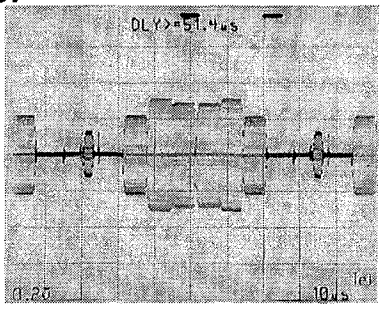

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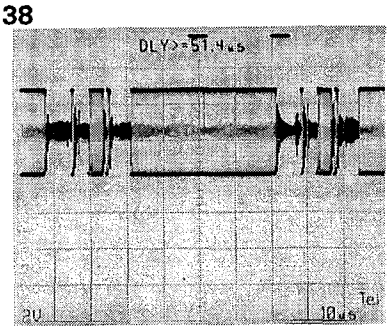

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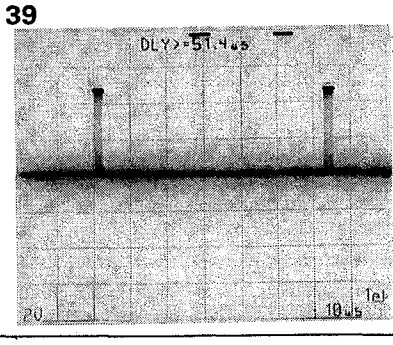

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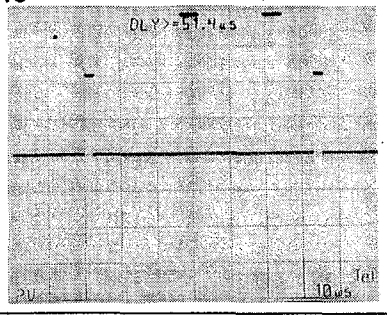

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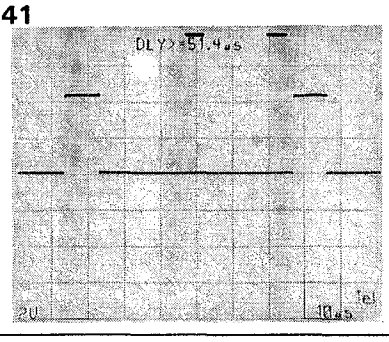

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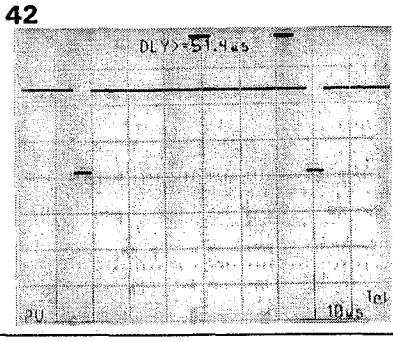

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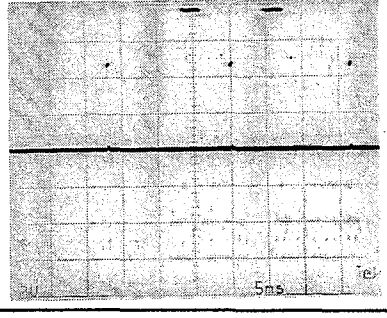

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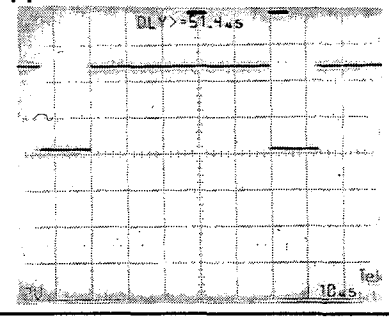

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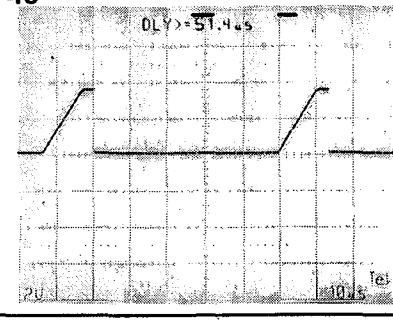

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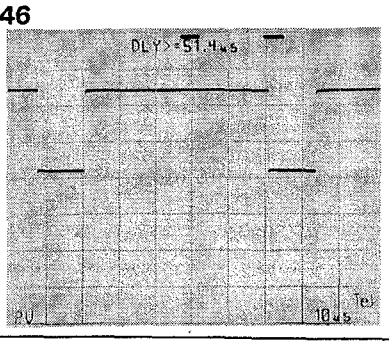

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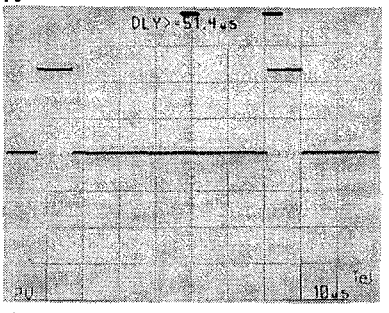

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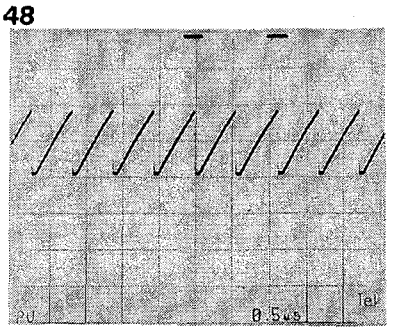

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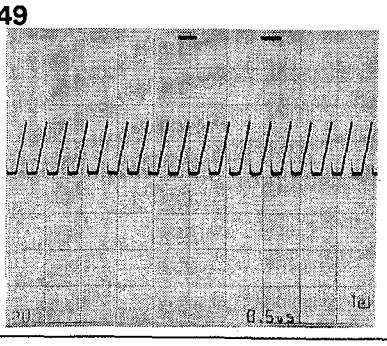

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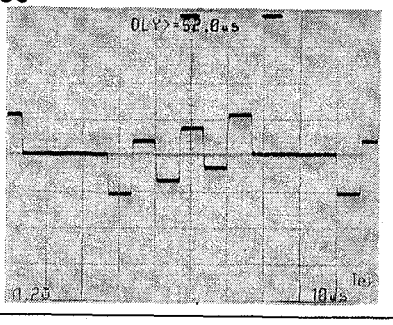

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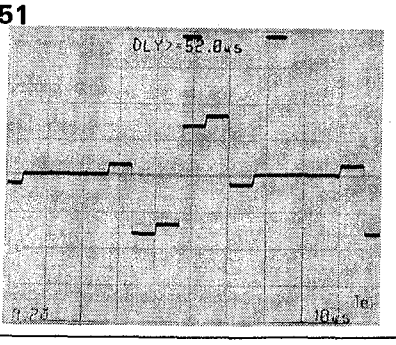

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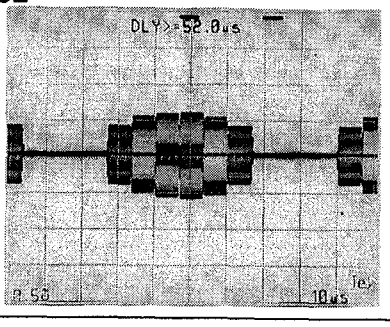

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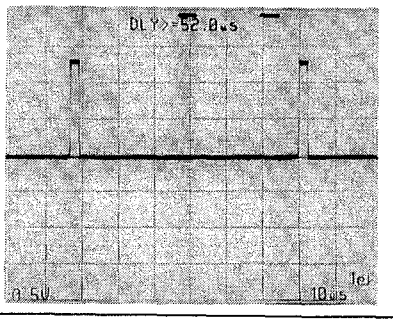

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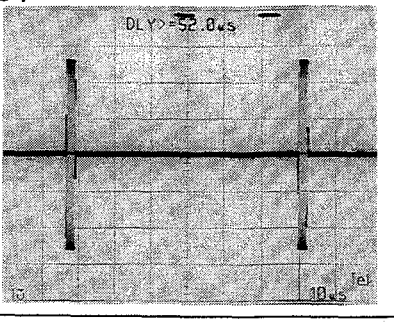

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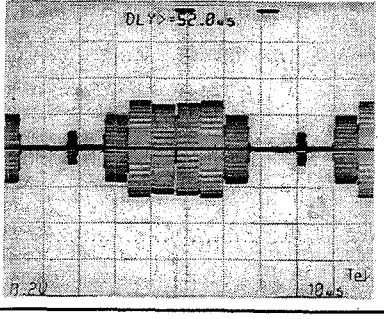
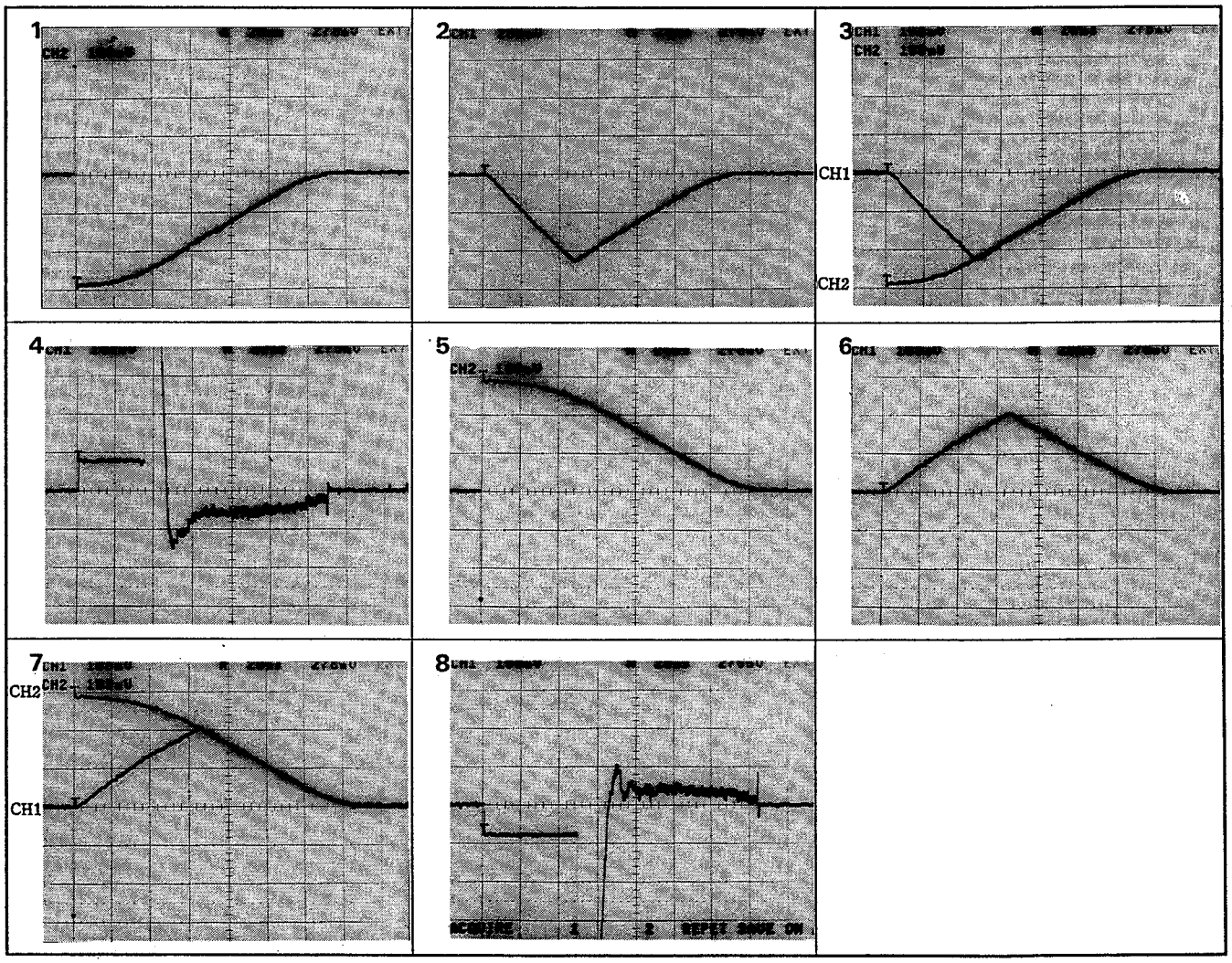


● MPU Assy

INPUT : COLOR BAR, COMPOSITE INPUT (Y, R−Y, B−Y) PB MODE

No.	OBSERVATION POINT	SIGNAL NAME	V / div	T / div	OFFSET VOLTAGE	REMARKS
1	TP602 (TP702)	TARGET SPEED	100 [mV]	20 [ms]		FWD 25000 + r
2	TP603 (TP703)	PRESENT SPEED	100 [mV]	20 [ms]		FWD 25000 + r
3	TP602 (TP702) : CH1 TP603 (TP703) : CH2	SPEED WAVEFORM	100 [mV] : CH1 100 [mV] : CH2	20 [ms]		FWD 25000 + r
4	LME	LME	100 [mV]	20 [ms]		FWD 25000 + r
5	TP602 (TP702)	TARGET SPEED	100 [mV]	20 [ms]		REV 25000 + r
6	TP603 (TP703)	PRESENT SPEED	100 [mV]	20 [ms]		REV 25000 + r
7	TP602 (TP702) : CH1 TP603 (TP703) : CH2	SPEED WAVEFORM	100 [mV] : CH1 100 [mV] : CH2	20 [ms]		REV 25000 + r
8	LME	LME	100 [mV]	20 [ms]		REV 25000 + r



Mark	No.	Description	Parts No.
	C2, C13, C17, C25, C29, C43, C47, C53, C68, C70, C83, C85, C89, C90, C94, C100, C123−C125, C130, C131, C208 (22/20)		DCH1043
RESISTORS			
	VR3, VR4		DCP1047
	VR1, VR2, VR5		DCP1051
	R86, R88		RN1/6PQ1000F
	R8		RN1/6PQ1001F
	R11, R12, R64, R65		RN1/6PQ1002F
	R20		RN1/6PQ1200F
	R85		RN1/6PQ2000F
	R37, R45, R82, R87		RN1/6PQ2001F
	R18		RN1/6PQ2701F
	R4, R81		RN1/6PQ3001F
	R89		RN1/6PQ30R0F
	R17, R19, R34, R35, R41, R42		RN1/6PQ3300F
	R5, R78		RN1/6PQ3301F
	R21		RN1/6PQ4700F
	R7		RN1/6PQ6801F
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN1, CN2	2P DIN CONNECTOR	DKM1007
	X3	(13.5MHz)	DSS1032
	X2	(32.236MHz)	DSX1014
		SCREW	BPZ30P100FMC

VAPB

SEMICONDUCTORS

IC402, IC502		AD844AN
IC802, IC808		CX23065A
IC401		CXA1053Q
IC201		CXD7500M
IC652		M51272FP
IC508		MB90061−101A
IC104, IC105		MC1495L
IC708		MN676011NPS
IC707		MN6761S
IC702, IC709		NJM082M
IC651		NJM1496M
IC102		NJM2058M
IC710, IC807, IC810		NJM360D
IC901		NJM431L
IC805, IC809		NJM4558M
IC509		NJM79L09A
IC301		PA0023A
IC302		PA3018
IC303		PM0001
IC812		TC74HC00AF
IC705		TC74HC04AF
IC804		TC74HC08AF
IC711		TC74HC221AF
IC803		TC74HC393AF
IC101		TC74HC4053AF
IC501, IC506, IC507, IC706, IC806		TC74HC4053AF
IC801, IC811		TC74HC74AF
IC701, IC703		TL601CPS
IC704		UPC319G2
IC503−IC505		UPC4359C
Q110, Q206, Q309, Q504, Q509, Q528, Q532, Q658, Q703, Q705, Q801, Q802		2SA933S
Q902		2SB1306
Q101−Q109, Q201, Q202, Q204, Q207, Q208, Q302−Q308, Q310−Q312, Q501−Q503, Q508, Q511, Q513−Q527, Q529−Q531, Q651−Q657, Q701, Q702, Q704, Q803		2SC1740S
Q505, Q506		2SC3622
Q901		2SD1961
D901		11ES2
D501−D506, D701, D702		1SS254

SWITCHES

S501−S503		DSH1018

COILS

F801, F901, F902		DTF1013
F301		DTF1027
F501		DTF1031
F651		DTF1032
VL401	(35UH)	DTL1003
L301, L302, L304, L305, L401−L403, L501, L502, L651, L652, L701, L702, L705, L706, L802, L901		LAU100J
L311, L704, L801		LAU101J
L703		LAU121J
L202		LAU1R8K
L306		LAU220J
L310		LAU470J
L503		LAU680J
L654		LAU6R8K
L101		LAU8R2J
L504, L505		LFA100J
L309, L653		LFA221J
L307, L308		LFA391J

CAPACITORS

C416, C513		CCCCH020C50
C521, C523, C533, C535, C548		CCCCH030C50
C550		CCCCH050C50
C657		CCCCH060D50
C323		CCCCH080D50
C658, C676, C807		CCCCH100D50
C659, C752, C753, C803, C818, C823, C824, C834, C839		CCCCH101J50
C126, C402, C568, C569		CCCCH120J50
C573		CCCCH131J50
C322		CCCCH150J50

Mark	No.	Description	Parts No.
	C722, C842		CCCCH200J50
	C133, C135, C347, C572		CCCCH220J50
	C415		CCCCH221J50
	C707, C728		CCCCH270J50
	C351, C544, C577−C579		CCCCH330J50
	C212		CCCCH430J50
	C140		CCCCH470J50
	C213, C214		CCCCH510J50
	C306		CCCCH560J50
	C316, C327, C403		CCCCH680J50
	C125, C141		CCCCH820J50
	C348		CCPUCH180J50
	C506		CEANP010M50
	C709, C734		CEANP0R1M50
	C329, C547		CEANP101M10
	C315, C317, C350, C701		CEANP220M16
	C339, C340, C557−C559, C662, C670		CEANP3R3M50
	C562		CEAS010M50
	C320, C408, C910		CEAS101M25
	C520, C522, C526, C532, C534, C538, C549		CEAS221M10
	C102, C104, C109, C111, C116, C118, C130, C132, C203, C204, C309, C311, C331, C332, C344, C346, C401, C410, C412, C503, C505, C508, C510, C511, C516, C518, C525, C537, C552, C554, C556, C564, C566, C574, C576, C580, C581, C652, C654, C656, C660, C667, C669, C680, C704, C706, C710, C712, C714, C725, C727, C732, C736, C739, C743, C745, C757, C802, C809, C813, C831, C833, C841, C903, C907, C909		CEAS470M25
	C406, C407, C729		CEAS4R7M50
	C804, C825		CEASR10M50
	C207, C209		CEASR47M50
	C721, C747		CFTXA102J50
	C715		CFTXA473J50
	C328		CKCYB331K50
	C206, C211, C324, C326, C723, C733		CKPUYB102K50
	C349		CKPUYB121K50
	C337, C338, C708		CKPUYB181K50
	C758		CKPUYB471K50
	C115, C117, C201, C202, C205, C208, C210, C509, C575, C651, C653, C655, C661, C702, C703, C705, C711, C713, C716, C717, C720, C742, C744, C750, C751, C816, C817, C830, C832, C906, C908		CKPUYF223Z25
	C101, C103, C108, C110, C112, C113, C121−C124, C127, C129, C131, C134, C136−C138, C307, C308, C310, C312−C314, C318, C319, C321, C325, C330, C333, C335, C341−C343, C345, C409, C411, C417, C502, C504, C512, C514, C515, C517, C524, C527, C529, C536, C539, C540−C543, C551, C553, C555, C560, C561, C563, C565, C567		CKPUYY103M16
	C570, C663−C666, C668, C671−C675, C677, C679, C718, C724, C726, C730, C731, C735, C737, C738, C740, C741, C746, C748, C754−C756, C801, C805, C806, C808, C810, C812, C814, C815, C819, C820, C822, C826, C828, C829, C835, C836, C838, C840, C843−C845, C901, C904		CKPUYY103M16
	C749		CQSA821J50
RESISTORS			
	VR302, VR503, VR505, VR506, VR655		DCP1019
	VR303, VR502, VR504, VR656, VR901		DCP1020
	VR101, VR102, VR802		DCP1021
	VR201, VR301, VR304, VR501, VR651, VR652, VR702, VR801		DCP1022
	VR507, VR701		DCP1023
	VR653, VR654		DCP1036
	R211, R330, R404, R515, R518, R585, R590, R592, R604, R606, R608, R617−R619, R621, R625, R652, R661, R664		RD1/6PM101J
	R156, R157, R215, R321, R331, R332, R672, R674, R705, R721, R730, R753, R754, R757, R801, R815, R836, R838, R840, R841, R906		RD1/6PM102J
	R213, R216, R671, R673, R701, R702, R725, R726, R739, R746		RD1/6PM104J
	R204, R710, R712		RD1/6PM105J
	R629		RD1/6PM220J
	R127, R129, R141, R151, R201, R220−R222, R309, R313, R315, R317, R320, R334, R338, R505, R509, R513, R530, R531, R552, R553, R576, R584, R655, R658, R659, R676, R678, R683, R719, R720, R728, R837		RD1/6PM222J
	R507		RD1/6PM393J
	R109, R110, R142, R716, R747−R751, R756, R839		RD1/6PM471J
	R325, R329, R336, R501, R524, R547, R624, R651, R656, R657, R660, R707, R745, R804		RD1/6PM472J
	R312, R324, R333, R675, R723, R724, R802, R803, R816, R817		RD1/6PM473J
	R158, R410, R630		RD1/6PM750J
	R503		RD1/6PM820J
	Other Resistors		RN1/6PQ□□□□F
OTHERS			
	CN326, CN328 2P DIN CONNECTOR		DKM1007
	X702 (14.31818MHz)		DSX1016
	X701, X801, X802 (14.31818MHz)		DSX1020
	SCREW		BPZ30P100FMC

Mark	No.	Description	Parts No.

VAR1 ASSY

SEMICONDUCTORS

	IC201	AD539JN
	IC202	AD844AN
	IC301	AD847JN
	IC304	CXD1171M
	IC302	CXD1176Q
	IC307	CXD1177Q
	IC303	CXD2105AQ
	IC203	LM1881N
	IC310	M51271SP
	IC106	MB88341P
	IC104, IC105	NJM2058D
	IC210	NJM431L
	IC207	NJM4556D
	IC209	NJM4558D
	IC101–IC103	TC4053BP
	IC313	TC74HC00AP
	IC204, IC205	TC74HC221AP
	IC206, IC309	TC74HC4053AP
	IC312	TC74HC74AP
	IC305, IC306, IC311	TC74HC86AP
	IC208, IC308	TL082CP
	IC107	TLC548IP
	Q202	2SA933S
	Q201, Q203, Q204, Q206, Q301–Q304	2SC1740S
	Q205	2SD1961
	D201	11ES2
	D101, D102	MTZJ6.2A

COILS

	F301	DTF1021
	F302	DTF1022
	F303, F304	DTF1023
	L102, L103, L201, L301–L304	LAU100J
	L202, L203, L305	LAU121J

CAPACITORS

	TC301	RCM1001
	C304	CCCCH100D50
	C219, C221, C222, C224	CCCCH121J50
	C342	CCCCH151J50
	C212, C214	CCCCH181J50
	C335	CCCCH240J50
	C211, C213	CCCCH270J50
	C358	CCCCH470J50
	C357	CEANP010M50
	C303	CEANP100M16
	C230	CEANP4R7M25
	C338, C341, C351, C353	CEAS010M50
	C119	CEAS100M50
	C110, C112, C114, C116, C202, C205, C210, C216, C226, C227, C231, C233, C239–C241, C306, C311, C319, C326, C328–C330, C337, C346, C359	CEAS470M25
	C215, C218, C238	CEASR10M50
	C352	CEASR47M50
	C309, C314, C315, C322, C324	CGCYF104Z25
	C243, C354	CKCYB471K50
	C310	CKPUYF103Z25
	C102–C106, C108, C109, C111, C113, C115, C117, C118, C120, C201, C203, C204, C207, C208, C217, C220, C223, C225, C228, C229, C232, C234, C236, C237, C242, C301, C302, C305, C307, C308, C312, C313, C316–C318, C320, C321, C323, C325, C327, C336, C339, C343–C345, C347, C348, C355, C356	CKPUYF223Z25
	C334	CQMA102J50
	C340	CQMA104J50
	C235, C331–C333, C349, C350	CQMA473J50

RESISTORS

	VR301–VR303	DCP1019
	VR304	DCP1020
	VR201, VR202	DCP1021
	VR203, VR204	DCP1022
	VR205	DCP1023
	VR305	DCP1031
	R101, R102	DCN1024
	R315, R320, R325, R330, R334, R346, R348, R361	RN1/6PQ1000F
	R311, R318	RN1/6PQ1001F
	R235	RN1/6PQ1102F
	R215, R236	RN1/6PQ1202F
	R304	RN1/6PQ1301F
	R317	RN1/6PQ2001F
	R310, R322, R347	RN1/6PQ2200F
	R214, R232, R233	RN1/6PQ2202F
	R309, R316	RN1/6PQ2401F
	R302	RN1/6PQ2701F
	R201, R301, R303, R312, R313, R319, R326, R327	RN1/6PQ3300F
	R307	RN1/6PQ3301F
	R213	RN1/6PQ4701F
	R216, R306, R331	RN1/6PQ8201F
	Other Resistors	RD1/6PM□□□J

OTHERS

	CN309 2P DIN CONNECTOR	DKM1007
	X301 (14.31818MHz)	DSS1024
	SCREW	BPZ30P100FMC

VAR2 ASSY

SEMICONDUCTORS

	IC106–IC108	AD847JN
	IC301	CXA1052Q
	IC201	NJM082D
	IC303	NJM431L
	IC304	NJM4558D

Mark	No.	Description	Parts No.
	IC302		TC74HC04AP
	IC204		TC74HC221AP
	IC104, IC105		TC74HC4052AP
	IC202		TC74HC4053AP
	IC203		UPC319C
	IC101–IC103		UPC4359C
	Q304		2SB1306
	Q102, Q201, Q202, Q301, Q302, Q305		2SC1740S
	Q303		2SD1961
	Q101		DTC124ES
	D301		11ES2
	D201–D204		1SS254
SWITCHES			
	S101–S103		DSH1018
COILS			
	F301		DTF1026
	L101, L102, L201, L202, L301		LAU100J
	L203		LAU221J
	L302		LAU330J
CAPACITORS			
	C108, C114, C121		CCCCH020C50
	C104, C112, C119		CCCCH050C50
	C313		CCCCH080D50
	C215, C217		CCCCH101J50
	C308, C314		CCCCH120J50
	C205		CCCCH470J50
	C304		CCCCH680J50
	C327		CCCCH750J50
	C208		CEANP0R1M50
	C303		CEAS101M10
	C103, C111, C118		CEAS331M6R3
	C101, C105–C107, C109, C113, C115, C116, C120, C122, C123, C129, C132, C201, C203, C207, C220, C311, C317, C322, C323		CEAS470M25
	C305, C306		CEAS4R7M50
	C206		CKCYB331K50
	C319–C321		CKCYB472K50
	C326		CKDYB102K50
	C102, C110, CF117, C124–C126, C128, C130, C131, C133–C136, C202, C204, C209, C210, C212–C214, C216, C219, C301, C302, C307, C310, C312, C315, C316, C318, C324, C325		CKPUYF223Z25
	C211		CQMA473J50
RESISTORS			
	VR301–VR305		DCP1021
	VR306		DCP1032
	R150–R152, R333, R335		RD1/6PM101J
	R203, R207, R209, R303, R306, R314, R315, R331, R334		RD1/6PM102J
	R127, R132, R137, R143, R148, R319, R320, R327, R328		RD1/6PM103J
	R206, R208		RD1/6PM105J
	R322–R325		RD1/6PM151J
	R145		RD1/6PM154J
	R202, R205, R211		RD1/6PM182J
	R122		RD1/6PM274J
	R101–R103, R212, R321		RD1/6PM473J
	R126		RD1/6PM474J
	R201		RD1/6PM561J
	Other Resistors		RN1/6PQ□□□□F
OTHERS			
	CN311	2P DIN CONNECTOR	DKM1007
		SCREW	BPZ30P100FMC

VDEC ASSY

SEMICONDUCTORS

IC42		BA728F
IC504		CX23065A
IC17		CXD1171M
IC14		CXD1175AM
IC16		CXD1177Q
IC6		CXD7500M
IC18–IC21		CXK1206M
IC7		EL2020CN
IC39		HD74ACT166FP
IC26, IC27		HD74ACT283FP
IC11, IC12, IC15		LM360N
IC34		MB88346BPF
IC46		NJM082M
IC507		NJM2903M
IC13		NJM319M
IC1		NJM431M
IC2–IC5, IC8, IC10, IC102		NJM4558M
IC44		PD4356D
IC38		PD4357A
IC22, IC24		TC74ACT157F
IC23		TC74ACT541F
IC503		TC74HC161AF
IC48		TC74HC174AF
IC530		TC74HC221AF
IC41, IC47		TC74HC4066AF
IC501		TC74HC74AF
IC508		TC74HCT04AF
IC30		TC74HCT541AF
IC28, IC29		TC74HCT574AF
IC40		TC7S00F
IC302		TC7S02F
IC506, IC509		TC7S04F
IC502		TC7S08F
IC505		TC7S66F
IC300		TC7W04F
IC9		UPC393G2
IC31–IC33		UPD42101G–3
IC25, IC35, IC36		UPD42102G–3

Mark	No.	Description	Parts No.
	Q6, Q14–Q17, Q22		2SA1037K
	Q1, Q7, Q18, Q304		2SC2412K
	Q13		2SC3624
	Q8, Q10, Q11		2SK508
	Q2, Q9, Q501		DTA114EK
	Q300		DTC114EK
	D2–D4, D300, D303, D304, D308–D310, D320		1SS221
	D1		MTZ11C
	D302		MTZJ8.2B
	D5, D7, D311		SEL3410GLC05
	D6, D8		SEL3910DLC05
	D9–D14		SEL3C10RLC05
SWITCHES			
	S2–S4		DSH1018
	S1		OSX1007
COILS			
	F5–F7		DTF1013
	F1		DTF1028
	F4		DTF1029
	F2, F3		DTF1048
	L1–L3		LAU100K
	L4		LAU101K
	F8–F12		VTH1012
CAPACITORS			
	C11		CCSQCH070D50
	C97		CCSQCH101J50
	C3, C520		CCSQCH151J50
	C75, C76		CCSQCH180J50
	C530–C532		CCSQCH181J50
	C326, C514		CCSQCH200J50
	C329		CCSQCH220J50
	C322, C503		CCSQCH221J50
	C312, C340		CCSQCH330J50
	C24		CCSQCH331J50
	C15, C74, C106		CCSQCH470J50
	C8, C108, C109, C508		CEANP010M50
	C10		CEANPR33M50
	C9, C12		CEANPR47M50
	C26–C28, C42, C43, C45, C47, C49		CEAS101M25
	C13, C305, C306		CKSQYB102K50
	C308, C309		CKSQYF103Z50
	C2, C4–C7, C16–C19, C22, C23, C25, C29–C33, C35, C36, C38–C41, C44, C46, C48, C50, C51, C53, C55–C57, C59, C62, C64, C66–C68, C77, C82, C83, C85–C87, C93–C96, C98, C102–C104, C110, C112, C300–C304, C307, C311, C315, C321, C325, C328, C505, C507, C509–C512, C533		CKSQYF104Z25
	C504		CQMA123J50
	C90		CQMA152J50
	C92, C327		CQMA333J50
	C91		CQMA471J50
	C1, C14, C34, C37, C52, C54, C58, C60, C61, C63, C65, C69–C71, C79–C81, C84, C88, C101, C105, C111, C113, C316–C320, C323, C324, C506		DCH1043
RESISTORS			
	VR1, VR2, VR5		DCP1046
	VR4, VR8		DCP1047
	VR3, VR6, VR7, VR9		DCP1051
	R37, R39, R44, R91		RN1/6PQ1001F
	R309, R310, R326, R327, R330		RN1/6PQ1002F
	R318, R321		RN1/6PQ1502F
	R38		RN1/6PQ2201F
	R332		RN1/6PQ2401F
	R104, R105		RN1/6PQ3300F
	R4, R42		RN1/6PQ3601F
	R6, R43, R90		RN1/6PQ3901F
	R319, R322, R328, R329, R331		RN1/6PQ3902F
	R333		RN1/6PQ4301F
	R98, R101, R106, R107		RN1/6PQ5600F
	R87		RN1/6PQ5601F
	R336, R385, R386, R504, R508		RS1/10S102F
	R338		RS1/10S132F
	R532		RS1/10S202F
	R531		RS1/10S302F
	R337		RS1/10S392F
	R53		RS1/10S432F
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN1, CN2	2P DIN CONNECTOR	DKM1007
		84P SOCKET	DKH1001
	X1	(12.288MHz)	DSS1025
	X3	(32.236MHz)	DSX1014
	X2	(13.500MHz)	DSX1015
		SCREW	BPZ30P100FMC

ADEM ASSY

SEMICONDUCTORS

	IC303	AD96685BQ
	IC510	CX20099
	IC503	CXD1077M
	IC453	CXD1095Q
	IC501	CXD1208Q
	IC112	CXD7500M
	IC459, IC502 (HM6264ALFP–10T)	GGF–913
	IC457	HM6287P–55
	IC113, IC114	LM6361M
	IC202	LM6364M
	IC307	MC10H113M
	IC320	MC10H124M

Mark	No.	Description	Parts No.
	IC304		MC10H125M
	IC306		MC10H131M
	IC308, IC309		NJM082M
	IC105, IC107, IC205, IC305, IC318, IC504		NJM431M
	IC111, IC204, IC314		NJM4560M
	IC207, IC301, IC313, IC507−IC509, IC513		NJM5532M
	IC212, IC515		NJM78L09A
	IC516		NJM79L09A
	IC454		PD4429A
	IC311, IC312		TC4053BF
	IC102		TC74HC00AF
	IC103, IC115		TC74HC04AF
	IC452		TC74HC10AF
	IC464		TC74HC165AF
	IC209, IC451		TC74HC32AF
	IC316		TC74HC393AF
	IC110, IC302		TC74HC4053AF
	IC108, IC203, IC206		TC74HC4066AF
	IC455, IC456		TC74HC541AF
	IC317		TC74HC74AF
	IC458		TC74HCU04AF
	IC201		UPA101G
	IC101		UPA103G
	IC208, IC210		UPC319G2
	IC315		UPC393G2
	Q101, Q102, Q201, Q203, Q205−Q209, Q218, Q311, Q314, Q316, Q317, Q321, Q503		2SA1462
	Q303		2SB1114
	Q103, Q112−Q114, Q202, Q204, Q210, Q301, Q302, Q313, Q315, Q318, Q322, Q504, Q510		2SC3735
	Q501		2SD1614
	Q505−Q508		2SK508
	Q115−Q117, Q211, Q213, Q217, Q319, Q324, Q509		DTA124EK
	Q212, Q214−Q216, Q310, Q320, Q323, Q450, Q451, Q502, Q511−Q514		DTC124EK
	D106, D201, D202, D205, D301, D455, D502−D504, D506−D509		1SS221
	D501, D512		1T33−T8
	D109, D203, D204, D206, D307		HSM88WA
	D105		HZS3B2
	D208, D510, D511		RB100A
	D107, D306, D451−D454		SEL2210S
SWITCHES			
	S1, S2		DSH1018
COILS			
	F10, F11, F13, F16		DTF1003
	F1−F4, F6−F9, F14, F15		DTF1013
	F502, F503 (15kH)		DTF1019

Mark	No.	Description	Parts No.
	L312, L501 (5.6UH)		DTH1125
	L203 (1.5UH)		DTH1126
	L204 (2.2UH)		DTH1127
	L205, L303 (3.3UH)		DTH1128
	L311 (1.8UH)		DTH1129
	L304 (12UH)		DTH1130
	L451−L454 (47UH)		DTH1134
	L101, L102, L106−L109, L307, L310, L502, L503, L506		LFA101K
	F301−F307, F451−F454, F501		VTH1001
CAPACITORS			
	TC501 (25p)		DCM1008
	C506, C520		CCCUJ330J50
	C123, C202		CCSQCH050D50
	C484, C540, C543, C585, C588		CCSQCH101J50
	C203, C204		CCSQCH150J50
	C309		CCSQCH151J50
	C404, C538, C541, C546, C548		CCSQCH270J50
	C318, C559, C573		CCSQCH330J50
	C246, C247, C257		CCSQCH331J50
	C205		CCSQCH470J50
	C343		CCSQCH471J50
	C308		CCSQCH510J50
	C547, C549		CCSQCH620J50
	C500, C501		CCSQCH680J50
	C405		CCSQCH750J50
	C545, C550		CCSQSL561J50
	C536, C537		CCSQSL681J50
	C167, C250, C251, C270, C524, C593		CEANP010M50
	C154, C155, C560, C564, C576, C579		CEANP100M25
	C591, C592, C611		CEANP220M25
	C534, C535, C553, C583, C584, C610		CEAS100M25
	C586, C589		CEAS101M16
	C161, C168, C455, C458, C461, C477, C603, C607		CEAS221M16
	C103, C105, C116, C121, C129, C131, C134, C144, C146, C148, C150, C165, C206, C208, C212, C213, C215, C220, C222, C227, C230, C242, C244, C248, C272, C274, C280, C303, C305, C326, C329, C330, C332, C338, C339, C349, C354, C356, C361, C366, C368, C372, C380, C393, C412, C417, C452, C454, C460, C476, C483, C509, C514, C517, C519, C523, C539, C542, C551, C552, C554, C565, C569, C570, C613		CEAS470M16
	C567, C580		CFTXA224J50
	C555, C571		CFTXA333J50
	C503		CFTXA334J50
	C397		CFTXA473J50
	C558, C574		CFTXA562J50
	C562, C578		CFTXA681J50
	C561, C577		CFTXA822J50
	C336, C347, C363, C391, C413, C414, C505, C614		CKSQYB102K50

Mark	No.	Description	Parts No.
	C104, C106, C107, C109, C110, C117, C119, C120, C124, C128, C130, C132, C133, C135, C145, C147, C149, C151−C153, C156−C158, C160, C162, C163, C166, C169, C207, C209, C211, C214, C216, C219, C223−C226, C228, C229, C241, C243, C245, C249, C252−C256, C258, C260, C263, C264, C273, C275−C277, C304, C306, C307, C310−C316, C319−C325, C327, C328, C331, C333−C335, C340−C342, C344−C346, C348, C350−C353, C357, C358, C360, C362, C365, C367, C369, C371, C373−C377, C379, C392, C394−C396, C398−C403, C409, C411, C415, C416, C418, C451, C453, C456, C459, C462, C463, C465−C475, C481, C482, C502, C504, C507, C508, C510−C513, C515, C516, C518, C525, C529−C532, C563, C566, C568, C587, C590, C601, C602, C606, C608, C615	CKSQYB103K50
	C101, C102, C111, C164, C201, C210, C217, C218, C278, C279, C301, C302, C317, C337, C381, C406	CKSQYF104Z25
	C521, C526	CMA470J500
	C522, C557, C572	CQSA221J50
RESISTORS		
	VR4, VR14, VR15, VR20	DCP1047
	VR3, VR5, VR7, VR8, VR11, VR12, VR16−VR19	DCP1048
	R353	RN1/6PQ1001F
	R354	RN1/6PQ1602F
	R362−R364, R366, R371	RN1/6PQ2201F
	R229	RN1/6PQ3900F
	R350	RN1/6PQ4700F
	R342, R345, R347	RN1/6PQ5600F
	R344, R349	RN1/6PQ6800F
	R103, R104, R107, R169, R177, R181, R214, R234, R242−R245, R324, R343, R355, R370, R388, R389, R391, R394, R400, R406, R407, R410, R505, R511, R515, R516, R600, R726	RS1/10S102F
	R152−R154, R172, R202, R232, R254−R257, R261, R263, R304, R306, R307, R313, R378, R382, R390, R392, R507, R508, R535, R536, R549, R550, R576, R597, R598, R601, R604, R725, R735, R748, R749	RS1/10S103F
	R541, R555	RS1/10S113F
	R509	RS1/10S122F
	R521−R526	RS1/10S123F
	R527, R530	RS1/10S183F
	R265, R319, R333−R335, R337, R338, R340, R351, R352, R393, R451−R453, R578, R579, R591−R594	RS1/10S222F
	R236, R267, R537, R538, R551, R552	RS1/10S242F
	R213, R322, R326, R510	RS1/10S272F
	R270, R272, R332	RS1/10S273F
	R160, R233, R239, R369, R402, R519, R520, R543, R544, R557, R558	RS1/10S302F
	R533, R534	RS1/10S304F
	R225, R228, R323, R381, R387, R408, R540, R542, R546, R554, R556	RS1/10S332F
	R110, R135, R139, R148−R150, R201, R216, R223, R235, R301, R302, R305, R397, R512	RS1/10S391F
	R385, R603	RS1/10S392F
	R226, R231, R246−R249, R348, R547	RS1/10S472F
	R170, R502, R517, R518, R562, R563	RS1/10S473F
	R155, R211, R258−R260, R269, R271, R309, R401, R548, R589, R590	RS1/10S512F
	R176, R268, R529, R531	RS1/10S513F
	R528, R532	RS1/10S563F
	R513	RS1/10S750F
	R357, R367	RS1/10S753F
	R203, R204, R310, R398, R539, R553	RS1/10S821F
	R577	RS1/10S914F
	Other Resistors	RS1/10S□□□J
OTHERS		
	CN318, CN320 2P DIN CONNECTOR	DKM1007
	X1 (32.236MHz)	DSX1014
	SCREW	BPZ30P100FMC

AMOD ASSY

SEMICONDUCTORS

	IC202	CX20099
	IC201	CXD1077M
	IC300	CXD1208Q
	IC301 (HM6264ALFP−10T)	GGF−913
	IC500, IC600−IC602	HM63021FP−34
	IC203	NJM431M
	IC101	NJM5532DD
	IC250	NJM78L05A
	IC150	NJM78L09A
	IC151	NJM79L09A
	IC409, IC421, IC524, IC525, IC608, IC616	TC74AC00F
	IC307, IC402, IC404, IC511	TC74AC02F
	IC312, IC425, IC507, IC510	TC74AC04F
	IC412, IC513, IC607	TC74AC10F
	IC309	TC74AC138F
	IC609	TC74AC157F
	IC427, IC505, IC514, IC516, IC518, IC606, IC614	TC74AC163F
	IC407, IC419, IC420, IC504, IC522, IC523, IC526	TC74AC164F

Mark	No.	Description	Parts No.
	IC422, IC501–IC503, IC605, IC612		TC74AC166F
	IC414, IC423, IC521, IC611		TC74AC174F
	IC410, IC512, IC517, IC519, IC604		TC74AC175F
	IC308, IC406, IC408, IC416, IC418, IC506		TC74AC20F
	IC417		TC74AC32F
	IC310, IC313, IC527		TC74AC574F
	IC302, IC304, IC305, IC403, IC405, IC411, IC415, IC426, IC508, IC509, IC515, IC603, IC610, IC613, IC615, IC618		TC74AC74F
	IC306, IC401, IC413		TC74AC86F
	IC303		TC74HC08AF
	IC311, IC315		TC74HC367AF
	IC424, IC520		TC74HC4020AF
	IC314		TC74HC541AF
	IC617		TC7WU04F
	Q700–Q704		2SC1623
	Q101		2SC3735
	Q1–Q4		DTC124EK
	D301, D302		1T33–T8
	D201, D701, D702		HSM107S
	D1–D4		SEL2210S
COILS			
	F201		DTF1013
	F120, F121 (15kH)		DTF1019
	L301 (5.6UH)		DTH1125
	L601 (2.2UH)		DTH1127
	L705, L706 (1.8UH)		DTH1129
	L701, L702 (0.22UH)		DTH1131
	L602 (0.56UH)		DTH1132
	L703, L704 (1.0UH)		DTH1133
	L100–L102 (220UH)		DTH1135
	F100–F102, F202		VTH1001
CAPACITORS			
	TC1, TC2 (25p)		DCM1008
	C301		CCCUJ330J50
	C300		CCCUJ470J50
	C601, C703, C704		CCSQCH101J50
	C207, C208		CCSQCH221J50
	C211, C212		CCSQCH330J50
	C701, C702		CCSQCH470J50
	C309		CCSQCH560J50
	C603		CCSQCH680J50
	C705, C706		CCSQSL471J50
	C201–C204, C221, C222, C225, C226, C250, C251		CEYA100M16
	C152, C153, C156, C157, C162, C163, C165, C167, C252–C255, C291		CEYA101M16
	C217, C218		CEYANP100M25
	C209, C210		CEYANP220M25
	C304		CFTNA334J50
	C219, C220		CFTXA224J50
	C205, C206		CFTXA333J50
	C213, C214		CFTXA562J50
	C223, C224		CFTXA681J50
	C215, C216		CFTXA822J50
	C302, C604		CKSQYB102K50
	C306		CKSQYB103K50
	C303, C602, C707–C712		CKSQYF103Z50
	C105, C106, C150, C151, C154, C155, C158–C161, C164, C166, C168, C256–C259, C261–C264, C270, C273, C305, C350–C352, C500–C549, C605		CKSQYF104Z25
	C260		CQSA221J50
RESISTORS			
	VR1, VR2, VR6, VR7, VR9		DCP1046
	VR4, VR5		DCP1050
	R91–R93 (101, 0.03W)		DCX1020
	R90, R96–R99 (103, 0.03W)		DCX1022
	R254		RS1/10S101J
	R302, R307–R309, R605, R607		RS1/10S102J
	R301		RS1/10S104J
	R701–R704		RS1/10S121J
	R713		RS1/10S152J
	R259, R261		RS1/10S153J
	R602		RS1/10S183J
	R603		RS1/10S221J
	R305		RS1/10S243J
	R709, R710		RS1/10S330J
	R272, R273		RS1/10S331J
	R306		RS1/10S333J
	R105, R106, R260, R262, R601		RS1/10S393J
	R711, R712, R750–R755, R790, R791		RS1/10S680J
	R100, R109		RS1/10S752J
	Other Resistors		RS1/10S□□□F
OTHERS			
	CN322, CN324 2P DIN CONNECTOR		DKM1007
	X1 (32.2237MHz)		DSS1022
	SCREW		BPZ30P100FMC

AUIF1 ASSY

SEMICONDUCTORS

	IC504	ADC0832CCN
	IC502	BA6138
	IC201, IC203	M5238AL
	IC503	NJM2058D
	IC300, IC301, IC351, IC380, IC400, IC401, IC451	NJM4580L
	IC205	TC4052BP
	IC501	TC4053BP
	IC808	TC74HC00AP
	IC802	TC74HC163AP
	IC801	TC74HC164AP

Mark	No.	Description	Parts No.
	IC805		TC74HC175AP
	IC803		TC74HC259AP
	IC806		TC74HC74AP
	IC202		TC9176P
	Q306, Q307, Q356, Q357, Q406, Q407, Q456, Q457, Q603		2SA933S
	Q232, Q302, Q303, Q352, Q353, Q402, Q403, Q452, Q453, Q602		2SB649A
	Q304, Q305, Q354, Q355, Q404, Q405, Q454, Q455, Q800		2SC1740S
	Q308–Q311, Q358–Q361, Q408–Q411, Q458–Q461		2SC3327
	Q231, Q300, Q301, Q350, Q351, Q400, Q401, Q450, Q451, Q601		2SD669A
	Q201, Q251		2SK372
	Q202, Q252, Q811		DTA124ES
	Q805–Q810, Q812, Q813		DTC124ES
	D200, D201, D250, D251, D300–D303, D350–D353, D400–D403, D450–D453, D505–D508, D605–D607, D800		1SS254
	D231, D232		HZS10NB1
CAPACITORS			
	C301, C302, C351, C352, C401, C402, C451, C452		CCPUCH100J50
	C607		CEAS330M35
	C608		CEAS331M35
	C501–C504		CEAS3R3M50
	C236, C237		CEYA100M16
	C245, C246, C605, C606		CEYA101M16
	C307, C308, C357, C358, C407, C408, C457, C458, C601–C604		CEYA471M16
	C201–C203, C251–C253, C315, C365		CEYANP100M25
	C204, C206, C254, C256		CKPUYB121K50
	C380, C381		CKPUYB221K50
	C205, C232–C235, C238, C242–C244, C255, C305, C306, C309–C313, C355, C356, C359–C361, C405, C406, C409–C413, C455, C456, C459–C461, C507–C509, C801–C807		CKPUYF223Z25
RESISTORS			
	VR1–VR4		DCP1036
	VR7, VR8		VRTS6VS103
	R91–R94		RA4T104J
	R90		RA5T104J
	R212, R262, R322, R323, R372, R373, R422, R423, R472, R473		RN1/6PQ1501F
	R306, R307, R320, R321, R356, R357, R370, R371, R406, R407, R420, R421, R456, R457, R470, R471		RN1/6PQ3302F
	R230–R232, R300–R303, R350–R353, R400–R403, R450–R453		RN1/6PQ6801F
	Other Resistors		RD1/6PM□□□J

Mark	No.	Description	Parts No.
OTHERS			
	CN230		B4B–PH–K–Y
		20P IC SOCKET	DKH1004

AUIF2 ASSY

SEMICONDUCTORS			
	IC14, IC15		M5238AL
	IC11–IC13		NJM4580L
	IC16		TC9176P
	Q18		2SB649A
	Q17		2SD669A
	Q10, Q50		2SK372
	Q11, Q51		DTA124ES
	D10–D13, D50–D53		1SS254
SWITCHES			
	S10, S11		DSH1017
CAPACITORS			
	C38, C39, C78, C79		CCPUCH100J50
	C14, C16, C54, C56		CCPUSL680J50
	C24, C25, C34, C35		CEYA100M16
	C36, C37		CEYA221M16
	C10–C13, C50–C53		CEYANP100M25
	C17, C18, C57, C58		CKPUYB121K50
	C15, C20–C23, C26–C33, C55		CKPUYF223Z25
RESISTORS			
	VR10, VR11		DCP1024
	R14, R15, R54, R55		RN1/6PQ1802F
	R22, R23, R62, R63		RN1/6PQ3601F
	R16, R17, R24, R25, R56, R57, R64, R65		RN1/6PQ5101F
	R40–R42		RN1/6PQ6801F
	R18, R19, R58, R59		RN1/6PQ7502F
	Other Resistors		RD1/6PM□□□J

HPA ASSY

SEMICONDUCTOR			
	IC1		NJM4558D
COILS			
	F1–F3		DTF1003
CAPACITORS			
	C5, C6		CEYA101M16
	C1, C2		CEYANP100M25
	C3, C4		CKPUYB221K50
RESISTORS			
	VR101	(10k–A, 0.05W)	DCS1016
	R5, R6		RN1/6PQ3302F
	Other Resistors		RD1/6PM□□□J

Mark	No.	Description	Parts No.
OTHERS			
	JA1	JACK (HEADPHONE)	DKN1069
		PLATE	VNE1102

REJ SW ASSY

SWITCH

	S1		DSG1030

AUCN ASSY

AUCN Assy has no service part.

ADDC ASSY

SEMICONDUCTORS

	IC8		LM6361N
	IC104, IC107		NJM2903D
	IC108		NJM4558D
	IC24		TC74HC00AP
	IC17, IC23		TC74HC04AP
	IC13		TC74HC123AP
	IC12		TC74HC221AP
	IC4, IC19		TC74HC244AP
	IC110, IC111		TC74HC4066AP
	IC2, IC3, IC5, IC21, IC22		TC74HC574AP
	IC101, IC102, IC106, IC109		TL082CP
	IC10, IC11		UPC311C
	IC1, IC18 (XC3042−70PC84C)		GGF−915
	Q102, Q103		2SA933S
	Q100, Q101		2SC1740S
	Q1		DTC124ES
	D3, D4		1SS108
	D1, D2, D7, D8, D102, D103, D106−D109		1SS254

COILS

	L1		LAU101K
	L5		LFA102J
	L3		LFA122K
	L2, L4		LFA821K
	F1−F3, F101, F102		VTH1001

CAPACITORS

	C10, C48, C122		CCCCH101J50
	C100, C105, C111, C114		CCCCH151J50
	C22, C23, C136		CCCCH220J50
	C133		CCCCH221J50
	C50, C53		CCCSL271J50
	C21, C116, C138		CEAS010M50
	C120		CEAS100M16
	C145		CEAS101M10
	C127−C130, C142, C144		CEAS220M25
	C2, C25, C38−C42, C119, C135, C139		CEAS470M10
	C113		CEAS4R7M50
	C3		CFTXA104J50
	C118		CFTXA224J50
	C15		CFTXA334J50
	C112		CGCYF104Z25
	C1, C11, C24, C26−C37, C46, C47, C125, C132, C134, C140		CKPUYF103Z25
	C101, C102		CQMA102J50
	C115		CEANP010M50
	C103, C110, C117		CQMA103J50
	C51, C52		CQMA122J50
	C104		CQMA153J50
	C137		CQMA222J50
	C109		CQMA272J50
	C106, C107		CQMA273J50
	C121		CQMA473J50

RESISTORS

	VR1, VR2		DCP1022
	R106, R107		RN1/6PQ1003F
	R122		RN1/6PQ2201F
	Other Resistors		RD1/6PM□□□J

OTHERS

	CN1	2P DIN CONNECTOR	DKM1007
	X1	(6.56943MHz)	DSS1018
	X2	(6.5694MHz)	DSX1013
		84P SOCKET	DKH1001
		20P IC SOCKET	DKH1004
		8P IC SOCKET	DKH1005
		SCREW	BPZ30P100FMC

SPDL ASSY

SEMICONDUCTORS

	IC101		LF398N
	IC103		NJM2903D
	IC102, IC105		NJM2904D
	IC107		NJM4558D
	IC201, IC206		TC74HC00AP
	IC203		TC74HC04AP
	IC204		TC74HC08AP
	IC104		TC74HC123AP
	IC209		TC74HC139AP
	IC214−IC217		TC74HC163AP
	IC202		TC74HC221AP
	IC207, IC208		TC74HC32AP
	IC210		TC74HC541AP
	IC211−IC213		TC74HC574AP
	IC205, IC219		TC74HC74AP
	IC218, IC220		TC74HCU04AP
	IC106		TC9192AP
	Q103, Q104		2SA933S
	Q102		2SC1740S
	Q105		2SK184

Mark	No.	Description	Parts No.
	Q101, Q106		DTA124ES
	Q107−Q109		DTC124ES
	D101−D111		1SS254
	D201−D205		SEL2210S
COILS			
	F101, F102, F201−F203		VTH1001
CAPACITORS			
	C216, C217		CCCCH100D50
	C115, C221		CCCCH151J50
	C105, C122		CEANP010M50
	C106, C206		CEAS100M50
	C102, C103, C108, C114, C118, C119, C123, C125, C126, C205, C219, C220		CEAS470M16
	C116		CFTNA224J50
	C104		CFTXA103J50
	C109		CFTXA154J50
	C202		CFTXA223J50
	C117		CFTXA333J50
	C110		CFTXA683J50
	C101		CFTXA823J50
	C111, C112		CKCYB102K50
	C113, C120, C121, C204, C207−C215, C218, C222		CKPUYF223Z25
	C201, C203		CQMA102J50
RESISTORS			
	R224		RA8S103J
	Other Resistors		RD1/6PM□□□J
OTHERS			
	CN302	2P DIN CONNECTOR	DKM1007
	X101 (3.75MHz)		VSS1009
		SCREW	BPZ30P100FMC

MPU ASSY

SEMICONDUCTORS

	IC123, IC126		CXD1095Q
	IC105, IC922 (HM6264ALFP−10T)		GGF−913
	IC612, IC615, IC712, IC715		LM6361M
	IC107		M5295L
	IC108		M751701P
	IC613, IC713		NJM082M
	IC611, IC620, IC711, IC720		NJM2901M
	IC614, IC714		NJM311M
	IC604, IC605, IC608, IC610, IC704, IC705, IC708, IC710		NJM4558M
	IC616, IC618, IC716, IC718		NJM4560M
	IC507		NJM78M09FA
	IC508		NJM79M09FA
	IC602, IC702		NJMDAC−08M−C
	IC501		PD4298A
	IC603, IC606, IC607, IC703, IC706, IC707		TC4053BF
	IC125		TC74AC00F
	IC113		TC74AC04F
	IC110, IC111		TC74AC138F
	IC109		TC74AC139F
	IC114, IC127		TC74AC32F
	IC915		TC74HC00AF
	IC921		TC74HC02AF
	IC120, IC913, IC920		TC74HC04AF
	IC504, IC914, IC919		TC74HC08AF
	IC916		TC74HC107AF
	IC119		TC74HC109AF
	IC503		TC74HC123AF
	IC106, IC117, IC901−IC903		TC74HC161AF
	IC911		TC74HC164AF
	IC121, IC910		TC74HC165AF
	IC904		TC74HC175AF
	IC918		TC74HC21AF
	IC619, IC719		TC74HC221AF
	IC115, IC128, IC909		TC74HC245AF
	IC900, IC905−IC908		TC74HC257AF
	IC617, IC717		TC74HC4053AF
	IC116, IC505, IC506, IC912		TC74HC541AF
	IC118, IC122, IC917		TC74HC74AF
	IC601, IC701		TC74HCT374AF
	IC609, IC709		UPC815C
	IC101		UPD70320L−8
	IC112 (UPD71059GB−10−3B4)		GGF−916
	Q101, Q601, Q701		DTC124EK
	D503, D504		11ES2
	D106, D601, D701		1SS123
	D101−D105, D501, D502, D602−D609, D702−D709		1SS220
	D107		SEL2210S
COILS			
	F101, F501−F506		VTH1001
CAPACITORS			
	C667, C668, C767, C768		CCCCH121J50
	C661, C761		CCCCH150J50
	C660, C760		CCCCH470J50
	C107, C108		CCSQCH150J50
	C658, C758		CCSQCH221J50
	C137, C138		CCSQCH330J50
	C673, C773		CCSQCH820J50
	C651−C655, C751−C755		CCSQSL681J50
	C139, C517−C520		CEAS100M16
	C132, C133, C136, C515, C516		CEAS101M16
	C201, C202, C513, C514		CEAS221M6R3
	C110, C204		CEAS4R7M50
	C205		CEASR47M50
	C674, C774		CFTNA224J50
	C665, C765		CFTXA681J50
	C669, C769		CFTXA821J50
	C920		CKCYB821K50

Mark	No.	Description	Parts No.
	C111, C112		CKSQYB102K50
	C101–C106, C113–C131, C134, C135, C140, C203, C501–C510, C601–C642, C701–C742, C900–C919		CKSQYF104Z25
	C109		CKSQYF223Z50
	C670, C770		CQMA102J50
	C650, C656, C672, C750, C756, C772		CQMA103J50
	C664, C666, C764, C766		CQMA152J50
	C662, C663, C762, C763		CQMA222J50
	C671, C771		CQMA223J50
	C657, C757		CQMA332J50
	C659, C759		CQMA682J50
	C511, C512		CQMA823J50
RESISTORS			
	R101, R108, R116, R117, R119, R123, R249, R501–R503 (10k, 0.03W)		DCX1022
	R118 (3.3k, 0.03W)		DCX1021
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN314, CN316 2P DIN CONNECTOR		DKM1007
	84P SOCKET		DKH1001
	8P IC SOCKET		DKH1005
	X101 (16MHz)		DSS1021
	28P SOCKET		VKH1001
	SCREW		BPZ30P100FMC

422IF ASSY

SEMICONDUCTORS			
	IC104		HM6264AP–12
	IC109		M5295L
	IC106		MC34050P
	IC102		TC74HC138AP
	IC107		TC74HC4053AP
	IC105		TC74HC541AP
	IC101		UPD70320L–8
	IC108		UPD72001C–11
	Q101		DTC124ES
	D101–D108		1SS254
COILS			
	F102, F103		DTF1003
	F101		VTH1001
	F104–F115		VTH1005
CAPACITORS			
	C106, C107		CCCCH150J50
	C120, C121		CCCCH270J50
	C116, C117		CEAS101M10
	C102		CEAS4R7M50
	C105, C108–C115, C118, C119		CGCYF104Z25
	C103, C104		CKCYB102K50
	C101		CKCYF223Z50

Mark	No.	Description	Parts No.
RESISTORS			
	R108		RA10S103J
	R120		RA8S332J
	R105		RA8S473J
	Other Resistors		RD1/6PM□□□J
OTHERS			
	X102		DSS1001
	X101 (16MHz)		DSS1021
	28P SOCKET		VKH1001
	84P SOCKET		DKH1001

422CN ASSY

SEMICONDUCTORS			
	D201–D206, D209, D210, D213–D216, D219, D220		MTZJ16B/C
RESISTORS			
	All Resistors		RD1/6PM□□□J
OTHERS			
	JA1, JA2 9P D-SUB SOCKET		DKN1051
	JA3 15P D-SUB SOCKET		DKN1052

MOTHER ASSY

OTHERS			
	CN237		B3B–PH–K–S
	CN229		B4B–PH–K–Y
	J301	CONNECTORASSY	DKP2045
	J302	CONNECTORASSY	DKP2046
	J303	CONNECTORASSY	DKP2047
		CONNECTORASSY (CN201–CN202)	DKP2055
		CONNECTORASSY (CN203–CN204)	DKP2056
		CONNECTORASSY (CN205–CN206)	DKP2057
		CONNECTORASSY (CN209–CN210)	DKP2059
		CONNECTORASSY (CN211–CN212)	DKP2060
		CONNECTORASSY (CN213–CN214)	DKP2061
		CONNECTORASSY (CN215–CN216)	DKP2062
		CONNECTORASSY (CN219–CN220)	DKP2064
		CONNECTORASSY (CN243–CN244)	DKP2075
		CONNECTORASSY (CN207–CN208)	DKP2207
		CONNECTORASSY (CN217–CN218)	DKP2208

Mark	No.	Description	Parts No.

CNNB ASSY

OTHERS

	CN113, CN115, CN212	B2B−PH−K−S
	CN109, CN119	B3B−PH−K−S
	CN12	B5B−EH
	CN210	B4B−PH−K−R

FR3 ASSY

SEMICONDUCTORS

	D17−D48	1SS254

OTHERS

	CN603	DKP2141

FR1 ASSY

SEMICONDUCTORS

	IC10	CXD1095Q
	IC44−IC47	HM62256ALFP−8T
	IC18	M5295L
	IC50	PQ12RF11
	IC6, IC33, IC35	TC74HC04AF
	IC32, IC34	TC74HC08AF
	IC28	TC74HC160AF
	IC25, IC29, IC30	TC74HC161AF
	IC27	TC74HC164AF
	IC48, IC49	TC74HC165AF
	IC26	TC74HC20AF
	IC5	TC74HC244AF
	IC4, IC42, IC43	TC74HC245AF
	IC17	TC74HC245AP
	IC31	TC74HC32AF
	IC1−IC3	TC74HC541AF
	IC16	TC74HC541AP
	IC40, IC41	TC74HC573AF
	IC21−IC24, IC36	TC74HC74AF
	IC15	UPD43257AGU−10L
	IC7	UPD70320L−8
	IC20 (UPD72020GC−8−3B6)	GGF−914
	IC8 (XC3042−70PC84C)	GGF−915
	Q1, Q6	2SC2412K
	Q2	2SD1614
	Q4	2SD669A
	Q3	DTA124EK
	Q5	DTC124EK
	D3, D4	11ES2
	D2, D5	1SS254
	D1	MTZJ5.6B

SWITCH

	S1	VSC−012

Mark	No.	Description	Parts No.

COILS

	F4−F6	DTF1013
	F1−F3	VTH1001

CAPACITORS

	C11	CCSQCH220J50
	C12	CCSQCH101J50
	C4, C5, C7, C8	CCSQCH150J50
	C10	CCSQCH181J50
	C14	CEAS100M25
	C15	CEAS101M25
	C19	CEANP100M16
	C1−C3	CEAS331M16
	C18	CEAS470M50
	C6, C13	CEAS4R7M50
	C21	CEASR15M50
	C16, C17	CKSQYB102K50
	C101−C136, C140−C149, C207, C208	CKSQYF104Z25
	C9	CKSYF105Z16

RESISTORS

	VR1	DCP1023
	R102	RA4S103J
	R101, R103	RA8S103J
	R10	RS1LMF151J
	Other Resistors	RS1/10S□□□J

OTHERS

	CN605	B2B−PH−K−S
	CN601 34P CONNECTOR	DKP2141
	CN702 26P CONNECTOR	DKP2142
	CN604 16P CONNECTOR	DKP2143
	NYLON RIVET	DEC−117
⚠	L1 LITHIUM BATTERY	DEM1002
	84P SOCKET	DKH1001
	20P IC SOCKET	DKH1004
	8P IC SOCKET	DKH1005
	BUZZER	DPX1007
	X1, X2 (16MHz)	DSS1021
	IC SOCKET	OKH1006
	SCREW	BBZ30P080FMC

FR2M

SEMICONDUCTORS

	IC2	CXD1095Q
	IC1	TC74HC540AF
	Q1−Q5, Q9−Q14	DTC124EK
	D1−D5, D9−D14	1SS221
	D17	SLH−56VC3H

SWITCHES

	S5	DSG1031
	S14	DSG1032
	S12	DSG1033
	S1−S4, S9−S11, S13	DSG1036

Mark	No.	Description	Parts No.
CAPACITORS			
	C1−C8		CCSQCH101J50
	C901, C902, C907, C908		CKSQYF104Z25
RESISTORS			
	R903	(10k, 0.03W)	DCX1022
	R901		OCN1020
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN602	34P CONNECTOR	DKP2141
FR2S ASSY			
SEMICONDUCTORS			
	Q6−Q8		DTC124EK
	D6−D8		1SS221
	D15, D16		SLH−56VC3H
SWITCHES			
	S6−S8		DSG1037
RESISTORS			
	All Resistors		RS1/10S□□□J
JOG ASSY			
SEMICONDUCTOR			
	IC101		GP1A30R
CAPACITOR			
	C101		CKSQYF104Z25
RESISTOR			
	R101		RS1/10S121J
FPCN ASSY			
OTHERS			
	CN238		B3B−PH−K−S
	CN701	CONNECTOR	DKP2140
		SCREW	PMZ26P100FMC
		NUT	NB26FMC
ACCN ASSY			
COILS			
⚠	L1, L2		DTH1140
CAPACITORS			
⚠	C101−C103	(10000pF)	RCG−009
OTHERS			
⚠	CN2, CN5		SD−5277−02A

Mark	No.	Description	Parts No.
SCNB ASSY			
OTHERS			
	CN163		5597−08APB
	CN167		B3B−PH−K
SENS ASSY			
SWITCHES			
	S104−S109		DSG1015
MCNB ASSY			
CAPACITOR			
	C105		CGCYF104Z25
CASW ASSY			
SWITCH			
	S101		DSK1004
OTHERS			
	CN164		5597−08APB
FGSB ASSY			
SEMICONDUCTOR			
	IC101		GP1A30R
CAPACITOR			
	C104		CKPUYF223Z25
RESISTORS			
	All Resistors		RD1/6PM□□□J
SVAW ASSY			
SEMICONDUCTORS			
	IC108		NJM2903M
	IC201, IC202, IC206, IC207, IC209, IC210, IC301, IC303, IC307−IC310, IC312, IC315, IC403		NJM4560M
	IC401		NJM7805FA
	IC402		NJM7905FA
	IC304		PM4001
	IC102−IC104		TC4094BF
	IC107, IC313, IC314		TC74HC00AF
	IC101		TC74HC123AF
	IC305		TC74HC221AF
	IC203, IC204, IC404		TC74HC4052AF
	IC208, IC302, IC306, IC311		TC74HC4053AF
	IC105		TC74HC541AF
	IC205		UPC812G2
	Q101, Q301, Q302		DTC124EK

Mark	No.	Description	Parts No.
	D401, D402		11ES2
	D201–D204, D306		1SS123
	D101, D103, D301–D305		1SS220
	D102		SEL3C10RLC05
CAPACITORS			
	C214		CCSQCH100J50
	C107–C109		CCSQCH101J50
	C209, C212, C213, C409		CCSQCH220J50
	C304		CCSQCH271J50
	C312		CEANP010M50
	C343		CEANP100M25
	C317		CEANPR22M50
	C356		CEANPR47M50
	C101, C352		CEAS010M50
	C401–C406		CEAS470M25
	C342		CFTNA474J50
	C332		CFTXA104J50
	C302		CFTXA273J50
	C339, C344		CFTXA563J50
	C102, C128		CFTXA683J50
	C112–C114, C333		CFTXA823J50
	C309, C319		CKSQYB223K50
	C229		CKSQYB471K50
	C353, C354		CKSQYB821K50
	C103–C106, C110, C111, C115–C117, C201–C208, C210, C211, C215–C224, C305–C308, C310, C311, C316, C318, C322–C325, C329, C330, C334–C337, C340, C341, C345–C351, C355, C407, C408, C410–C414		CKSQYF104Z25
	C314, C315		CQMA102J50
	C303		CQMA112J50
	C320		CQMA123J50
	C331		CQMA272J50
	C313		CQMA332J50
	C326		CQMA392J50
	C327		CQMA472J50
	C301, C328		CQMA821J50
RESISTORS			
	VR1–VR3, VR13		DCP1024
	VR8–VR10		DCP1036
	VR7, VR14		DCP1037
	VR4–VR6, VR16		DCP1038
	VR11		DCP1039
	VR12		DCP1042
	R1, R2		RA8T103J
	R117, R332, R336, R395, R396		RS1/10S102J
	R102, R119, R201, R205, R211, R215, R358		RS1/10S105J
	R393		RS1/10S114J
	R392		RS1/10S162J
	R333		RS1/10S163J
	R320		RS1/10S225J
	R118		RS1/10S333J
	R207		RS1/10S334J
	R255, R261, R315, R361, R371, R382		RS1/10S470J
	R103, R106–R108		RS1/10S471J
	R233–R235, R240, R242, R243, R249–R252, R254, R256–R260, R322, R323, R334, R339, R341, R412		RS1/10S472J
	R101, R335		RS1/10S474J
	R394		RS1/10S514J
	R321		RS1/10S564J
	R312, R313, R389		RS1/10S623J
	R359		RS1/10S823J
	R360		RS1/10S912J
	R401		RS2LMF220J
	Other Resistors		RS1/10S□□□F
OTHERS			
	CN120		B3B–PH–K–S
		20P IC SOCKET	DKH1004

SVAE ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC608		NJM2903M
	IC701, IC702, IC706, IC707, IC709–IC711, IC801, IC803, IC807–IC810, IC812, IC815, IC903		NJM4560M
	IC901		NJM7805FA
	IC902		NJM7905FA
	IC804		PM4001
	IC602–IC604		TC4094BF
	IC607, IC813, IC814		TC74HC00AF
	IC601		TC74HC123AF
	IC805		TC74HC221AF
	IC703, IC704, IC904		TC74HC4052AF
	IC708, IC802, IC806, IC811		TC74HC4053AF
	IC605		TC74HC541AF
	IC705		UPC812G2
	Q601, Q801, Q802		DTC124EK
	D901, D902		11ES2
	D701–D704, D806		1SS123
	D601, D603, D801–D805		1SS220
	D602		SEL3C10RLC05
CAPACITORS			
	C714		CCSQCH100J50
	C607–C609		CCSQCH101J50
	C709, C712, C713, C909		CCSQCH220J50
	C804		CCSQCH271J50
	C812		CEANP010M50
	C843		CEANP100M25
	C817		CEANPR22M50
	C856		CEANPR47M50
	C601, C852		CEAS010M50
	C901–C906		CEAS470M25

Mark	No.	Description	Parts No.
	C842		CFTNA474J50
	C832		CFTXA104J50
	C802		CFTXA273J50
	C839, C844		CFTXA563J50
	C602, C628		CFTXA683J50
	C612–C614, C833		CFTXA823J50
	C809, C819		CKSQYB223K50
	C729		CKSQYB471K50
	C853, C854		CKSQYB821K50
	C603–C606, C610, C615–C617, C701–C708, C710, C711, C715–C724, C731, C732, C805–C808, C810, C811, C816, C818, C822–C825, C829, C830, C834–C837, C840, C841, C845–C851, C855, C907, C908, C910–C914		CKSQYF104Z25
	C814, C815		CQMA102J50
	C803		CQMA112J50
	C820		CQMA123J50
	C831		CQMA272J50
	C813		CQMA332J50
	C826		CQMA392J50
	C827		CQMA472J50
	C801, C828		CQMA821J50
RESISTORS			
	VR501–VR503, VR513		DCP1024
	VR508–VR510		DCP1036
	VR507, VR514		DCP1037
	VR504–VR506, VR516		DCP1038
	VR511		DCP1039
	VR512		DCP1042
	R501, R502		RA8T103J
	R617, R832, R836, R895, R896		RS1/10S102J
	R602, R619, R701, R705, R711, R715, R858		RS1/10S105J
	R892		RS1/10S162J
	R833		RS1/10S163J
	R893		RS1/10S114J
	R767, R768		RS1/10S222J
	R820		RS1/10S225J
	R618		RS1/10S333J
	R707		RS1/10S334J
	R755, R761, R815, R861, R871, R882		RS1/10S470J
	R603, R606–R608		RS1/10S471J
	R733–735, R740, R742, R743, R749–R752, R754, R756–R760, R822, R823, R834, C839, R841, R912		RS1/10S472J
	R601, R835		RS1/10S474J
	R894		RS1/10S514J
	R821		RS1/10S564J
	R812, R813, R889		RS1/10S623J
	R814		RS1/10S822J
	R859		RS1/10S823J
	R860		RS1/10S912J
	R901		RS2LMF220J
	Other Resistors		RS1/10S□□□F
OTHERS			
	CN110		B3B–PH–K–S
		20P IC SOCKET	DKH1004

HE–W ASSY

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC2		LM6361M
	IC3		NJM2060M
	IC4		NJM78L05UA
	IC5		NJM79L05UA
	IC1		TL592BP
	Q10		2SA1462
	Q7		2SC3356
	Q1–Q6		2SC3663
	Q9		2SC3735
	D3, D4		1SS123
	D1, D2		1SS220
	D5, D6		HSM107S
COILS			
	L3–L6 (10UH)		DTH1124
	L1		OTL1008
	L2		OTL1022
	L7, L8 (10MH)		VTL1007
CAPACITORS			
	C201–C204		CCSQCH151J50
	C207–C210		CCSQCH180J50
	C116, C117, C124		CCSQCH221J50
	C113		CKSQYB222K50
	C105, C106, C123		CKSQYB682K50
	C107–C110, C114, C115, C118, C120, C205, C206		CKSQYF104Z25
	C122		CKSQYF223Z50
	C101–C103, C301–C308		DCH1043
	C119, C121		DCH1044
	C104		DCH1046
RESISTORS			
	VR1		DCP1045
	VR2		DCP1046
	R120		RS1/10S101J
	R121, R122, R201–R204		RS1/10S102J
	R124, R125		RS1/10S220J
	R117		RS1/10S330J
	R114		RS1/10S332J
	R126		RS1/10S620J
	R128		RS1/10S680J
	Other Resistors		RS1/10S□□□F
OTHERS			
	CN159		5597–11CPB
	CN116		B2B–PH–K–S

Mark	No.	Description	Parts No.
HE−E ASSY			
SEMICONDUCTORS			
	IC52		LM6361M
	IC53		NJM2060M
	IC54		NJM78L05UA
	IC55		NJM79L05UA
	IC51		TL592BP
	Q60		2SA1462
	Q57		2SC3356
	Q51−Q56		2SC3663
	Q59		2SC3735
	D53, D54		1SS123
	D51, D52		1SS220
	D55, D56		HSM107S
COILS			
	L53−L56	(10UH)	DTH1124
	L51		OTL1008
	L52		OTL1022
	L57, L58	(10MH)	VTL1007
CAPACITORS			
	C251−C254		CCSQCH151J50
	C257−C260		CCSQCH180J50
	C166, C167, C174		CCSQCH221J50
	C163		CKSQYB222K50
	C155, C156, C173		CKSQYB682K50
	C157−C160, C164, C165, C168, C170, C255, C256		CKSQYF104Z25
	C172		CKSQYF223Z50
	C151−C153, C351−C358		DCH1043
	C169, C171		DCH1044
	C154		DCH1046
RESISTORS			
	VR51		DCP1045
	VR52		DCP1046
	R170		RS1/10S101J
	R171, R172, R251−R254		RS1/10S102J
	R174, R175		RS1/10S220J
	R167		RS1/10S330J
	R164		RS1/10S332J
	R176		RS1/10S620J
	R178		RS1/10S680J
	Other Resistors		RS1/10S□□□F
OTHERS			
	CN157		5597−11CPB
	CN114		B2B−PH−K−S
APC1W ASSY			
SEMICONDUCTORS			
	IC412		LF398N
	IC410		LM6364M
	IC414		NJM082M
	IC413		NJM4250M
	IC415		NJM4560M
	IC421		TC74AC541F
	IC411		TC74HC4053AF
	IC416, IC417		TC74HC4066AF
	IC420		TC74HC86AF
	IC422		TC7S00F
	IC419, IC423		TC7S08F
	IC418		UPC812G2
	Q403, Q404		2SA1424
	Q401, Q402		2SA1462
	Q405−Q412		2SA1464
	Q413, Q414		2SA812
	Q415−Q417		2SC1623
	Q420		2SK508
	Q419		DTA124EK
	Q418		DTC124EK
	D401−D403		1SS220
CAPACITORS			
	C421, C450		CCSQCH220J50
	C448		CCSQCH680J50
	C442		CKSQYB102K50
	C416, C433		CKSQYB103K50
	C401−C407, C409, C410, C412, C414, C415, C417−C420, C422−C432, C434, C435, C438, C439, C441, C443, C444, C446, C447		CKSQYF104Z25
	C408, C413		DCG1010
	C436		DCH1044
	C440, C601−C604		DCH1044
	C445		DCH1045
RESISTORS			
	VR402, VR403, VR405		DCP1049
	VR404, VR406		DCP1050
	VR401		DCP1051
	R413, R417, R418, R477, R481−R486		RS1/10S103F
	R402, R414, R426, R437		RS1/10S121F
	R427		RS1/10S124F
	R430, R435		RS1/10S153F
	R441		RS1/10S202F
	R404		RS1/10S222F
	R403		RS1/10S301F
	R438		RS1/10S302F
	R429		RS1/10S303F
	R460		RS1/10S331F
	R443		RS1/10S511F
	R428		RS1/10S623F
	R431		RS1/10S752F
	R410		RS1/10S753F
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN161		5597−06APB
	CN411, CN412	10P CONNECTOR	DKN1047

Mark	No.	Description	Parts No.
APC2W ASSY			
SEMICONDUCTORS			
	IC609		RWT025L−2
	IC605		TC74HC00AF
	IC604		TC74HC02AF
	IC601, IC606		TC74HC04AF
	IC607, IC608		TC74HC10AF
	IC602, IC603		TC74HC541AF
COILS			
	L601−L604	(2.2UH)	DTH1138
CAPACITORS			
	C648−C656, C659		CKSQYF104Z25
	C657		DCH1043
	C658		DCH1044
RESISTORS			
	R601, R602		RA8T103J
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN601, CN602	10P CONNECTOR	DKN1048
APC1E ASSY			
SEMICONDUCTORS			
	IC512		LF398N
	IC510		LM6364M
	IC514		NJM082M
	IC513		NJM4250M
	IC515		NJM4560M
	IC521		TC74AC541F
	IC511		TC74HC4053AF
	IC516, IC517		TC74HC4066AF
	IC520		TC74HC86AF
	IC522		TC7S00F
	IC519, IC523		TC7S08F
	IC518		UPC812G2
	Q505−Q512		2SA1464
	Q513, Q514		2SA812
	Q515, Q517		2SC1623
	Q520		2SK508
	Q519		DTA124EK
	Q518		DTC124EK
	D501−D503		1SS220
CAPACITORS			
	C521, C550		CCSQCH220J50
	C548		CCSQCH680J50
	C542		CKSQYB102K50
	C516		CKSQYB103K50
	C501−C507, C509, C510, C512, C514, C515, C517−C520, C522−C526, C528−C531, C534, C535, C538, C539, C541, C543, C544, C546, C547		CKSQYF104Z25
	C508, C513		DCG1010
	C536, C540, C701−C704		DCH1044
	C545		DCH1045
RESISTORS			
	VR502−VR504		DCP1049
	VR506		DCP1050
	VR501		DCP1051
	R513, R517, R518, R577, R581−R586		RS1/10S103F
	R502, R514, R526		RS1/10S121F
	R527		RS1/10S124F
	R530		RS1/10S153F
	R504		RS1/10S222F
	R503		RS1/10S301F
	R529		RS1/10S303F
	R560		RS1/10S331F
	R543		RS1/10S511F
	R528		RS1/10S623F
	R531		RS1/10S752F
	R510		RS1/10S753F
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN155		5597−06APB
	CN511, CN512	10P CONNECTOR	DKN1047
APC2E ASSY			
SEMICONDUCTORS			
	IC805		TC74HC00AF
	IC804		TC74HC02AF
	IC802, IC803		TC74HC541AF
COILS			
	L801−L804	(2.2UH)	DTH1138
CAPACITORS			
	C848−C850, C859		CKSQYF104Z25
	C858		DCH1044
RESISTORS			
	R801, R802	(10k, 0.1W)	RA8T103J
	R907, R908		RS1/10S472J
OTHERS			
	CN801, CN802	10P CONNECTOR	DKN1048
DRVW ASSY			
SEMICONDUCTORS			
	IC103		NJM2068D
	IC101, IC102		NJM4556D
	IC301, IC302		NJM7805FA
	IC306		NJM78L05A
	IC303		NJM7905FA

Mark	No.	Description	Parts No.
	IC202, IC304		RC78L09A
	IC203, IC305		RC79L09A
	IC403		TA8413P
	IC307		TC74HC08AP
	IC308		TC74HC14AP
	IC201		UPC339C
	Q108, Q201, Q301, Q303, Q401–Q403		2SA933S
	Q112–Q114		2SB942
	Q107, Q203, Q204, Q304, Q305		2SC1740S
	Q101–Q106, Q302		2SC3327
	Q109–Q111, Q306		2SD1267
	Q202		2SK372
	Q307, Q308		DTC114YS
	Q404		SLA4020
	Q405		SLA4030
	D103–D108, D201, D202, D301, D302		11ES2
	D101, D102, D203–D206, D211, D212, D304, D306–D308		1SS254
	D207–D210		MTZJ4.7A
	D305		MTZJ6.8C
	D109, D110		MTZJ8.2C
	D213, D214, D309–D314		RB100A
RELAY			
	RY201		DSR1002
COILS			
	L301, L302 (47UH)		DTH1134
CAPACITORS			
	C105, C106, C111–C114, C119, C120		CCCCH220J50
	C131–C133		CCCSL101J50
	C407, C408		CCCSL470J50
	C216, C401–C403		CEANP330M50
	C207, C208, C214, C215, C322		CEAS010M50
	C203, C204, C311, C312, C316, C317, C406		CEAS101M25
	C201, C202		CEAS331M25
	C107, C110, C115, C118, C121, C124		CEAS470M25
	C301–C304, C306		CEHAQ470M25
	C210–C213		CEJA220M16
	C134		CEJANP4R7M16
	C409–C411		CEJANPR47M50
	C102		CFTNA105J50
	C101		CFTXA223J50
	C108, C109, C116, C117, C122, C123, C307–C310, C313–C315, C404, C405		CGCYF104Z25
	C125–C130, C205, C206, C318–C321		CKPUYF223Z25
	C103, C104		CQMA821J50
RESISTORS			
	R144		RS1LMF1R8J
	R141		RS1LMF8R2J
	R138		RS2LMF010J
	R314		RS2LMF180J
	R225		RS2LMF820J
	R201, R202		RS2LMFR47J
	Other Resistors		RD1/6PM□□□J
OTHERS			
	CN153		5597–08CPB
		BLACK 05A (WIRE)	ZWNH1007G26-0-05A
		HEAT SINK DRV A	DNG1035

DRVE ASSY

SEMICONDUCTORS

	IC603	NJM2068D
	IC601, IC602	NJM4556D
	IC801, IC802	NJM7805FA
	IC806	NJM78L05A
	IC803	NJM7905FA
	IC702, IC804	RC78L09A
	IC703, IC805	RC79L09A
	IC807	TC74HC08AP
	IC808	TC74HC14AP
	IC701	UPC339C
	Q608, Q701, Q801, Q803	2SA933S
	Q612–Q614	2SB942
	Q607, Q703, Q704, Q804, Q805	2SC1740S
	Q601–Q606, Q802	2SC3327
	Q609–Q611, Q806	2SD1267
	Q702	2SK372
	Q807, Q808	DTC114YS
	D603–608, D701, D702, D801, D802	11ES2
	D601, D602, D703–D706, D711, D712, D804, D806–D808	1SS254
	D707–D710	MTZJ4.7A
	D805	MTZJ6.8C
	D609, D610	MTZJ8.2C
	D713, D714, D809–D814	RB100A

RELAY

	RY701	DSR1002

COILS

	L801, L802 (47UH)	DTH1134

CAPACITORS

	C605, C606, C611–C614, C619, C620	CCCCH220J50
	C631–C633	CCCSL101J50
	C716	CEANP330M50
	C707, C708, C714, C715, C822	CEAS010M50
	C703, C704, C811, C812, C816, C817	CEAS101M25
	C701, C702	CEAS331M25
	C607, C610, C615, C618, C621, C624	CEAS470M25
	C801–C804, C806	CEHAQ470M25
	C710–C713	CEJA220M16
	C634	CEJANP4R7M16
	C602	CFTNA105J50

Mark	No.	Description	Parts No.
	C601		CFTXA223J50
	C608, C609, C616, C617, C622, C623, C807−C810, C813−C815		CGCYF104Z25
	C625−C630, C705, C706, C818−C821		CKPUYF223Z25
	C603, C604		CQMA821J50
RESISTORS			
	R644		RS1LMF1R8J
	R641		RS1LMF8R2J
	R638		RS2LMF010J
	R814		RS2LMF180J
	R725		RS2LMF820J
	R701, R702		RS2LMFR47J
	Other Resistors		RD1/6PM□□□J
OTHERS			
	CN135		5597−08CPB
		BLACK 05A (WIRE)	ZWNH1007G26-0-05A
		HEAT SINK DRV A	DNG1035

LD−OSC ASSY

SEMICONDUCTORS

	Q1, Q2	2SC3356

COILS

	L1 (33NH)	DTH1143
	L2, L3	OTL1011

CAPACITORS

	C4	CCSQCH020D50
	C3	CCSQCH100D50
	C6	CCSQCH150J50
	C5	CCSQCH391J50
	C7−C11	CKSQYB682K50

RESISTORS

	VR1	DCP1045
	Other Resistors	RS1/10S□□□J

PSY ASSY

PSY Assy has no service part.

PU MECHANISM ASSY

CAPACITORS

	C101 (W−C1)	CCSQCH120J50
	C102 (W−C2)	CCSQCH470J50
	C201 (E−C1)	CCSQCH300J50
	C202 (E−C2)	CCSQCH101J50

6. SERVICE MODE

6.1 HOW TO ENTER SERVICE MODE

1. Select CONFIG screen.
2. Select F3[DISPLAY].

   Press F9[TEST] and SHUTTLE key simultaneously to activate Service mode OSD from Composite out 3.

To see LOG TIME and ROM Version, select F1[MESSAGE] from CONFIG screen.

6.2 DIFFERENCE BETWEEN VDR-V1000 AND 1000A IN SERVICE ASSEMBLY

ASSY Name	VDR-V1000	VDR-V1000A	Compatibility of 1000A with 1000
VENC	DWX1259	DWX1427	Upper compatible
ADDC	1261	1428	Upper compatible
MPU	1254	1339	Upper compatible
ADEM	1256	1340	Upper compatible
SPDL	1260	1344	Upper compatible
VAR2	1264	1347	Not interchangeable
AMOD	1255	1348	Upper compatible
VAPB	1257	1367	Not interchangeable
VDEC	1258	1368	Not interchangeable
VAR1	1263	1369	Upper compatible
CONTROL UNIT-S	DXX1764	DXX2137	Not interchangeable due to FR1 board
SERVO MECHA	DXX1766	DXX2151	Upper compatible

VAR2, VAPB and VDEC are not interchangeable with olds.
If one of video boards is replaced, video characteristics may be changed.

DXX2151 AND 1766 are interchangeable.

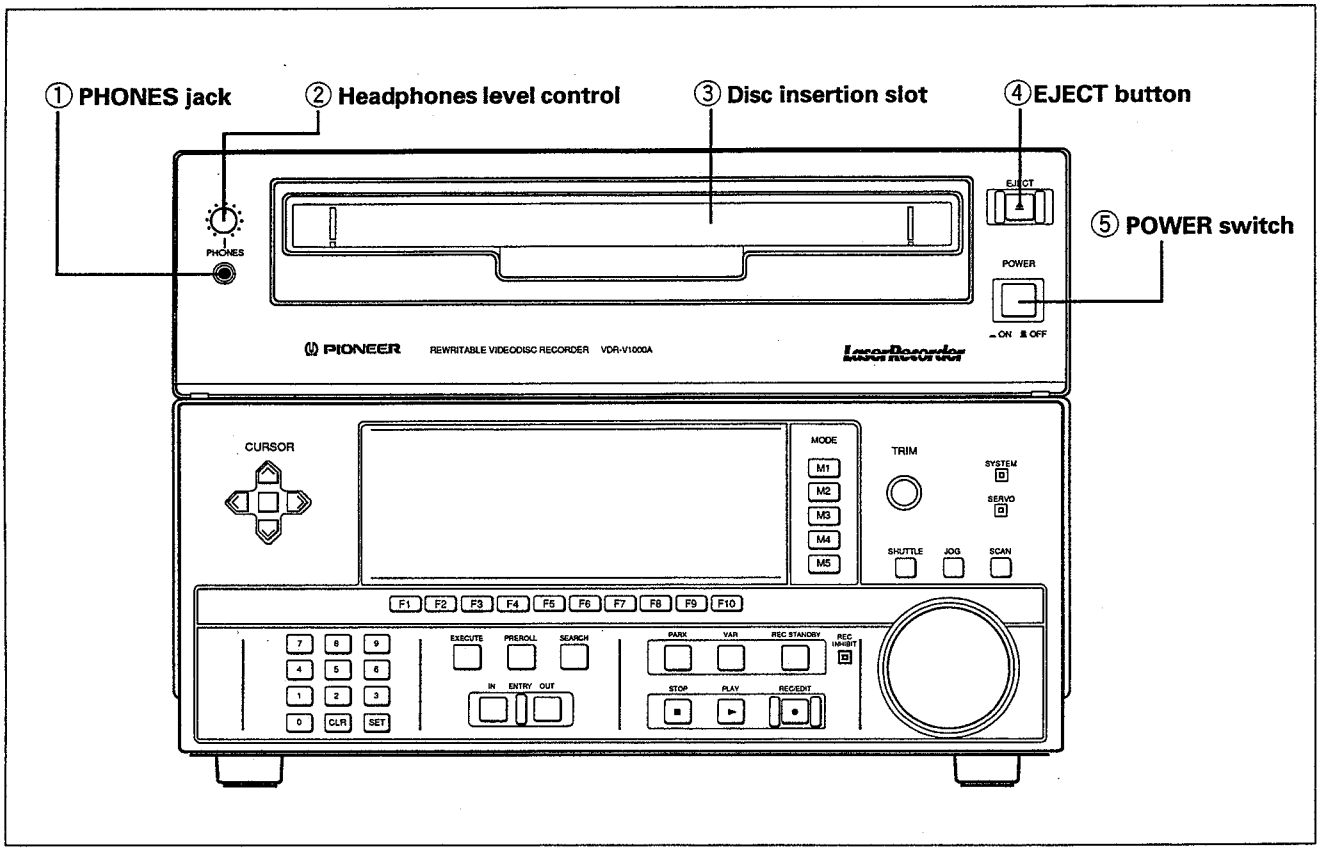
As IC9/11/12/15 are changed in new FR1, CONTROL UNIT-S is not interchangeable.

The following DYW----s are changed.

IC No.	100/1000	100A/1000A
MPU EPROM	DYW1203	DYW1306
	1204	1307
	1205	1308
422IF EPROM	DYW1131	DYW1309
FR1 EPROM	DYW1142 (IC13)	DYW1310 (IC14)
	1143 (IC14)	
VDEC IC37	DYW1153	DYW1311
FR1 IC11	DYW1140	DYW1240
IC12	1141	1241
IC9	1139	1242

Operating instructions and carton box are changed in VDR-V1000A.

7. PANEL FACILITIES



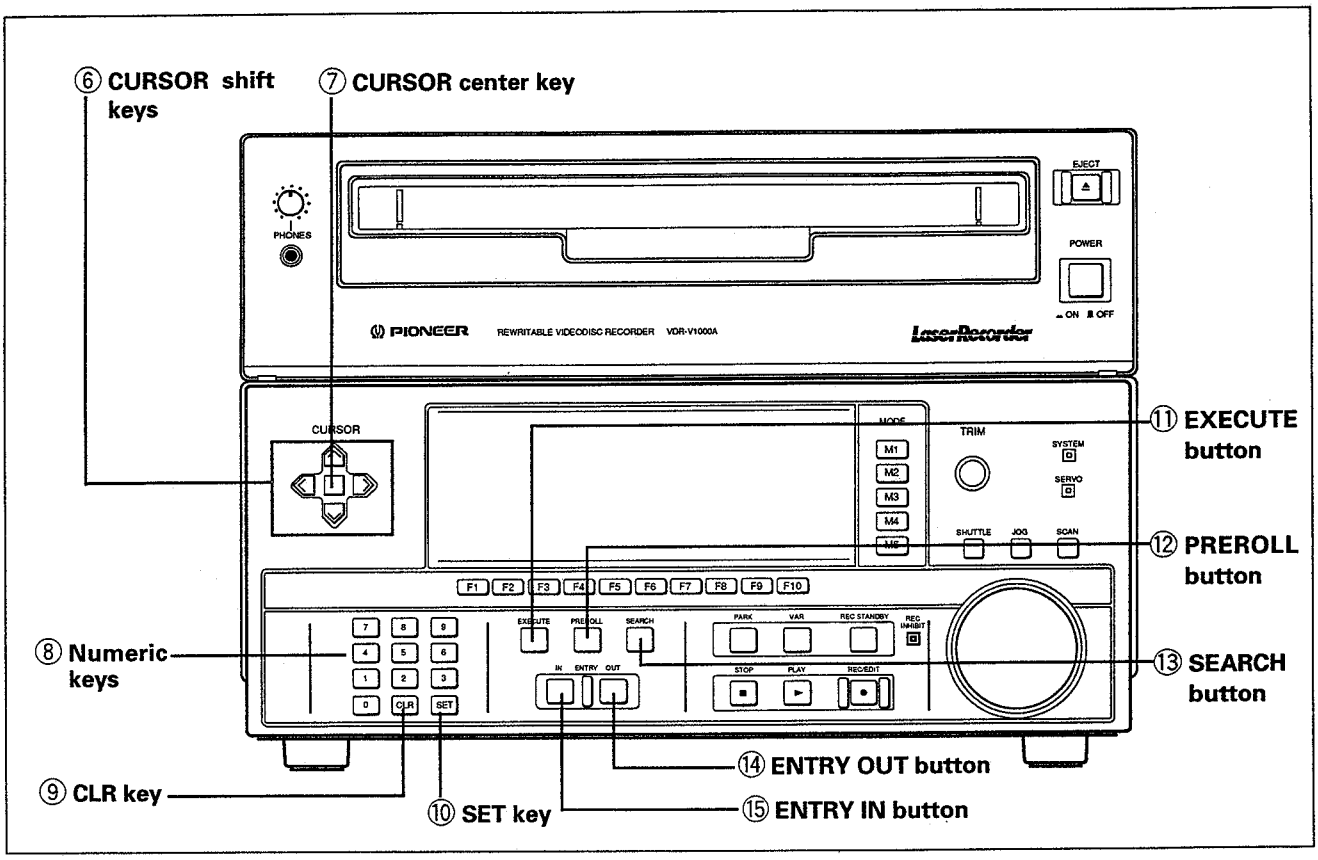
① PHONES jack
When stereo headphones are plugged in, the same audio as the monitor output can be monitored through the headphones. The audio level of the headphones is adjusted with the level control above the jack. The audio level is also interlocked with the level adjusted in the A IN OUT MODE.

② Headphones level control
Turn to adjust the audio level of the headphones.

③ Disc insertion slot
When a disc is partially inserted into the slot, it is automatically drawn into the unit. The door is locked while a disc is inserted inside. Do not force the door to open, or it will be damaged.

④ EJECT button
Press the eject the disc. This button is illuminated when no disc is present inside the slot. This button is enabled in any operation mode. If the button is pressed while the disc is rotating, ejection will take about 10 seconds because the disc should be stopped before being ejected.

⑤ POWER switch
Press in to turn the power ON. Press again to turn it OFF. When the power is turned ON, the self-illuminating switches light in sequence, then a screen appears on the EL display.



⑥ CURSOR shift keys

⑦ CURSOR center key

⑧ Numeric keys

⑨ CLR key

⑩ SET key

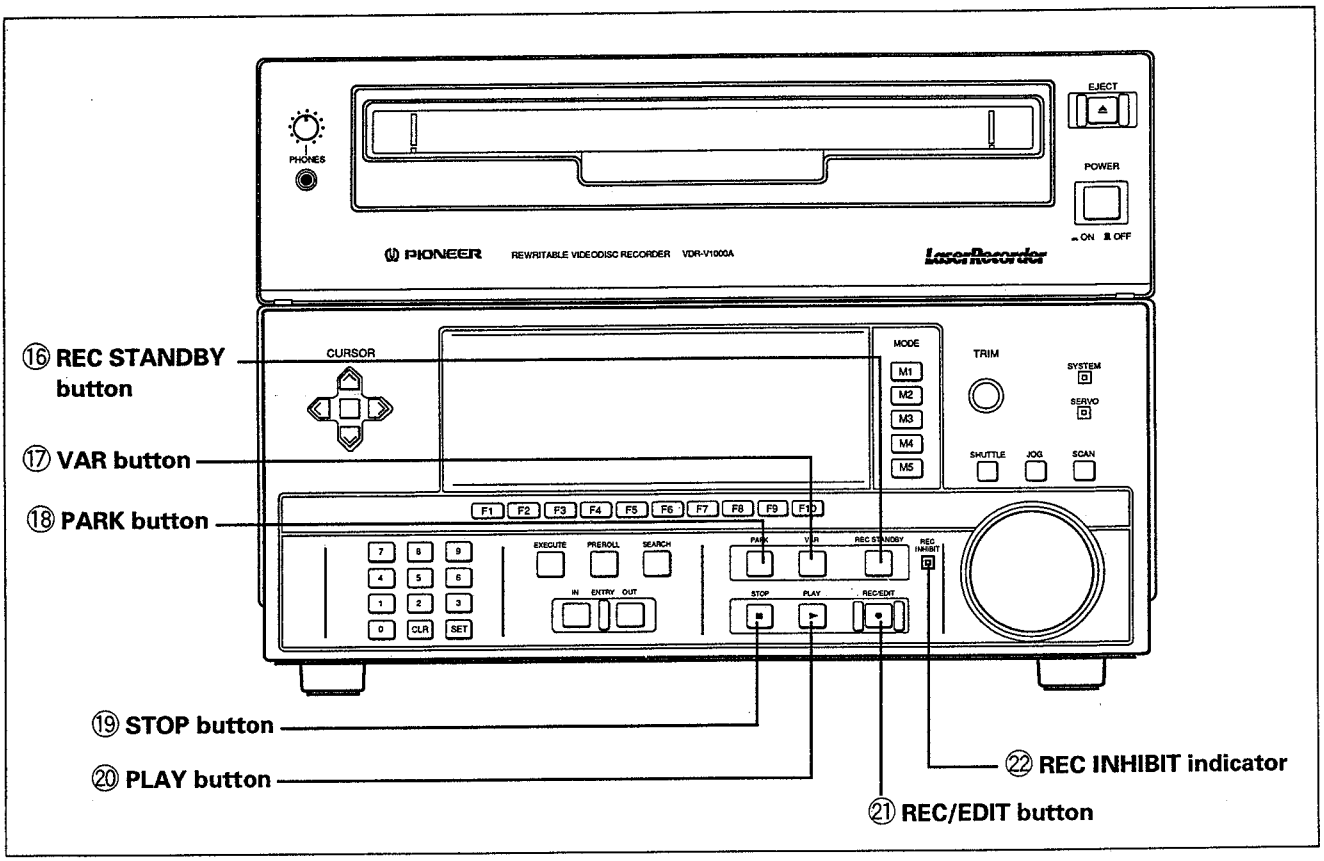
⑪ EXECUTE button

⑫ PREROLL button

⑬ SEARCH button

⑭ ENTRY OUT button

⑮ ENTRY IN button



⑯ REC STANDBY button
Press to initiate the record-standby mode. If the input has been selected by F4 (REC REF) in the V IN OUT MODE, pressing this button changes the output to the EE mode and changes the disc rotation synchronization phase from the reference signal input through the EXT REF connector (or built-in sync generator in case this input is not present) to the recording video signal input through the VIDEO INPUT connectors. If SYNCHRO has been selected, pressing this button changes the output to the EE mode, but the synchronization phase is provided by the synchronizer function of the video processor so no time is required for disc rotation synchronization.

⑰ VAR button
Press this button to initiate the variable-speed playback mode in a speed range of –1x to +3x of the normal playback speed. If the playback speed has previously been set with the SEARCH dial, playback starts at the preset speed.

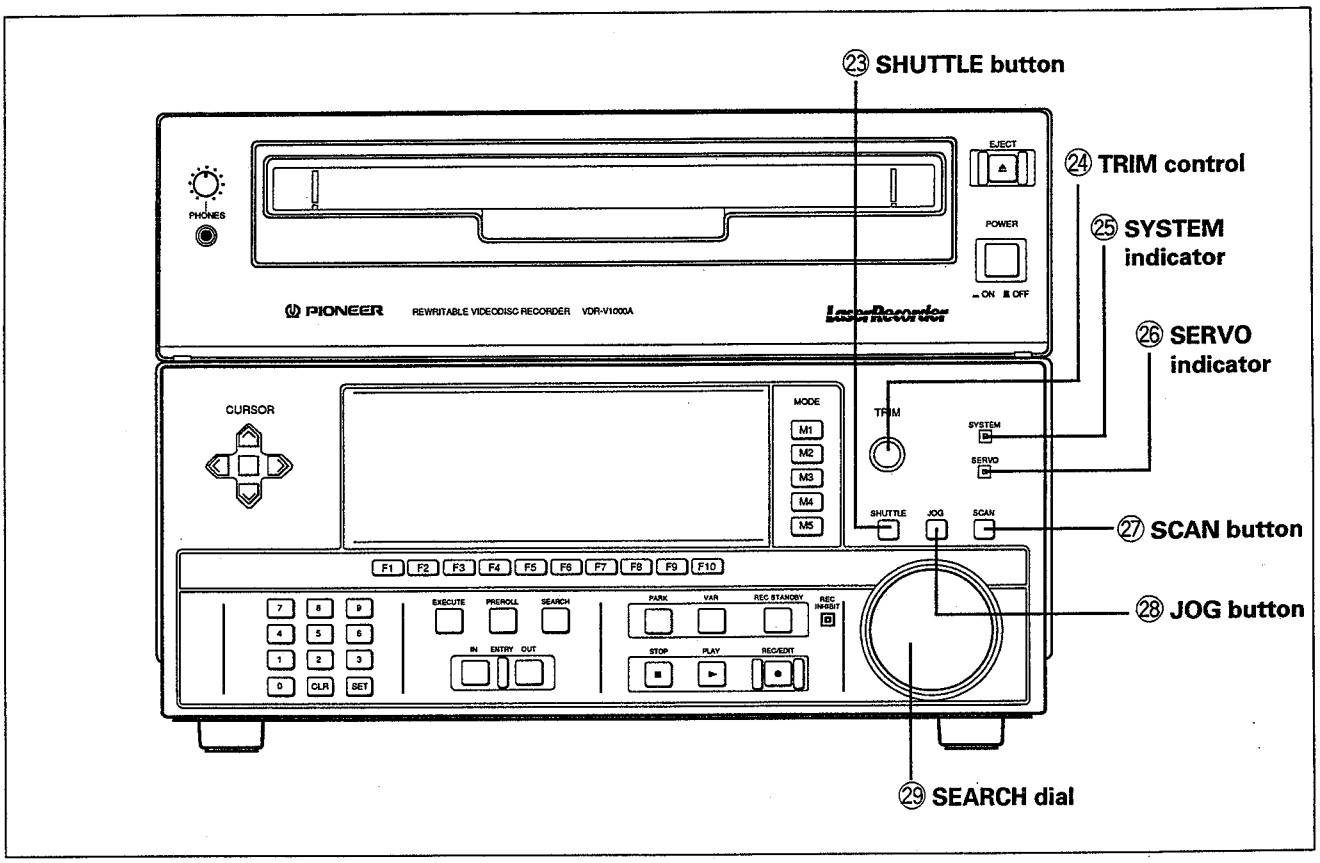
⑱ PARK button
Press to stop the disc rotation. To prevent operation mistakes, this button is enabled only when a still, paused image is being displayed (with the STOP button lighted).
This button can be disabled by setting the F4 (PARK) and F5 (LD START) keys in the FUNC MODE to **DISABLE** or **AUTO**

⑲ STOP button
During playback or recording, press to stop the execution of a function other than playback or recording. Pressing the button during playback changes the video to a still image. Pressing the button during recording in INPUT mode puts the unit in record standby mode and switches the output to EE mode. Pressing the button again switches the output to the still image of the playback video. Pressing the button yet again releases the record standby mode.

⑳ PLAY button
Press to start normal playback.

㉑ REC/EDIT button
Recording: To start recording, press the PLAY button while holding this button pressed.
Editing: When editing in the EDIT mode, press this button after having set the IN point to start editing.

㉒ REC INHIBIT indicator
This indicator lights when the inserted disc has been set to record inhibit mode.



㉓ SHUTTLE button

Press to initiate the shuttle mode. When this button is pressed, the video changes to a still image, and the still image transition speed can be adjusted with the SEARCH dial.
The maximum speed can be set with the F3 (SHTL MAX) key in the FUNC MODE.

㉔ TRIM control

Reffer to the section 1-3 "LIST OF KEY AND BUTTON CONTENTS IN DIFFERENT MODES"

㉕ SYSTEM indicator

This indicator flashes to warn that the unit is operating abnormally. When the MESSAGE MODE is entered while this indicator is flashing, the EL display shows an error message and the detailed contents of the error is displayed in VIDEO 3 output.

㉖ SERVO indicator

This indicator lights when the disc rotation starts or stops, or during rotation synchronization pull-in operation.

㉗ SCAN button

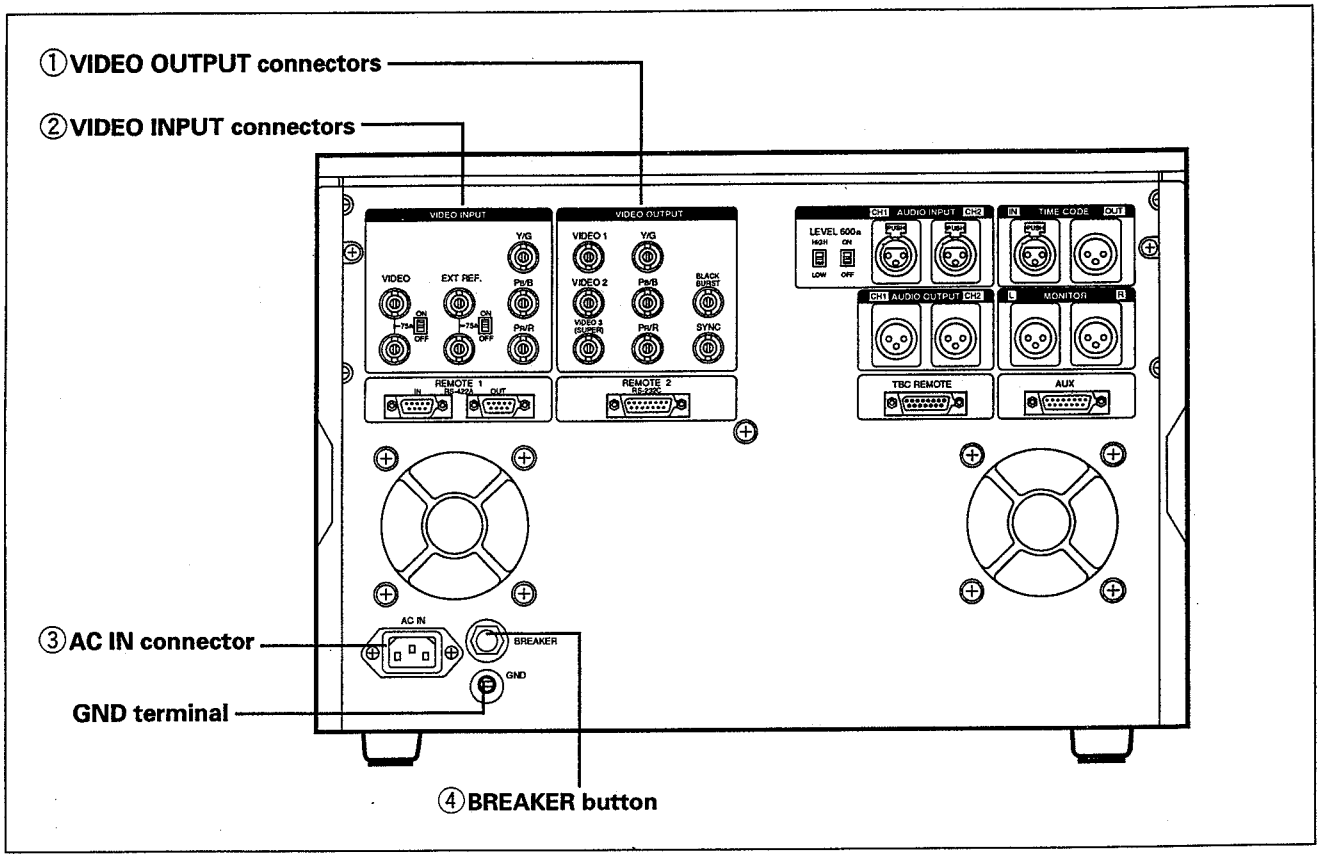
Press to initiate the scan mode. Scan mode allows you to search for a desired image at high speed by turning the SEARCH dial.
A still image is displayed when the SEARCH dial is not being turned.

㉘ JOG button

Press to initiate the jog mode. Jog mode allows you to advance or search frame by frame by turning the SEARCH dial.
A still image is displayed when the SEARCH dial is not being turned.

㉙ SEARCH dial

Turn to play the video images in jog, shuttle, scan or variable-speed playback mode while varying the playback speed and direction at the same time. Turn the dial clockwise to play or move in the forward direction, and turn it counterclockwise to play or move in the reverse direction.



① VIDEO OUTPUT connectors

VIDEO 1, 2 and 3 output connectors (BNC)
These connectors output composite video signals. Connect them to the video input connectors of a video recorder or monitor. With the VIDEO 3 signal, you can superimpose data such as the frame number and time number on the picture.

Y/G, PB/B and PR/R (component video) output connectors (BNC)
The outputs from these connectors are switchable between the Y, PB and PR signals and the analog GBR signals.

BLACK BURST output connector (BNC)
This outputs the signal from the built-in black burst generator.

SYNC output connector (BNC)
This outputs the composite sync signal from the built-in sync generator.

② VIDEO INPUT connectors

VIDEO input connectors (BNC) with 75-ohm termination switch
These connectors accept a composite video signal input. One of the two connectors can be used as through output for bridged connection to other equipment. In this case, set the 75-ohm termination switch to OFF.

EXT REF. input connectors (BNC) with 75-ohm termination switch
These connectors accept external reference video or composite sync signal input.
One of the two connectors can be used as a through output for bridged connection to other equipment. In this case, set the 75-ohm termination switch to OFF.

Y/G, PB/B and PR/R (component video) input connectors (BNC)
Input terminals for the Y, PB and PR signals or the analog GBR signals.

③ AC IN connector

This is the input connector of AC mains power.

④ BREAKER button

Circuit breaker for the power supply primary circuit.

In case the circuit breaker is turned OFF
The BREAKER button comes out and the primary side of the power supply is turned OFF. Press the POWER switch to OFF and consult your nearest after-sale service agent.

8. SPECIFICATIONS

General

Recording/playback system	Magneto-Optical (MO) system
Light source	Laser diode
Optical head configuration	2 separate heads
Recording medium	30 cm disc cartridge
Recording time	Motion pictures: 32 minutes Still pictures: 57600 frames
Disc rotation speed	Frame frequency (1800 rpm) - CAV
Access time	Average 0.3 second
Editing accuracy	0 frame
Power supply	120 V AC, 50/60 Hz
Power consumption	170 W
Dimensions	436 x 321 x 649 mm (WxHxD) 17-3/16 x 12-5/8 x 27-5/16 in (WxHxD)
Weight	42 kg (92 lb 10 oz)
Operating temperature	+5 to +35°C (+41 to +95°F)
Storage temperature	–20 to +60°C (–4 to +140°F)
Storage humidity	20 to 80%

Video system

Recording format	Time-compression integrated analog components (Compression ratios: Y=1.2, P_B,P_R=7.2)
Luminance bandwidth	4.1 MHz $^{+0}_{-6}$ dB
S/N (frame number : 20000)	
Luminance	47 dB (component) 44 dB (composite)
Chroma AM	48 dB
Chroma PM	50 dB
DG	5 %
DP	3 DEG
K factor	3% (2T pulse)
YC delay	±50 nsec
Input video level (VIDEO input only)	
Variation range	±3 dB
AGC	±6 dB
Output variation ranges	
Video level	±3 dB
Chroma level	±3 dB
Setup level	±15 IRE (however, dark clip is –10 IRE)
Hue	±15° (VIDEO output only)
System SC phase	360 DEG (VIDEO output only)
System sync phase	+3 to –1 µsec
YC delay	±100 nsec

Audio system

Recording format	Time-compression integrated PCM
Number of channels	2
Bandwidth	15 kHz
Dynamic range	85 dB
Headroom	20 dB
Crosstalk	–65 dB

Input/Output Signals

Video inputs

<Connector Name>	<Signal Name>	<Level>	<Impedance>
VIDEO	Composite video	1 Vp-p	75-ohm ON/OFF
EXT REF*	Video	1 Vp-p	75-ohm ON/OFF
	Composite sync	4 Vp-p	75-ohm ON/OFF
Y*	Component luminance	1 Vp-p negative sync	75-ohm
P_B, P_R*	Component color differences	0.7 Vp-p	75-ohm
G, B, R*	Analog GBR	0.7 Vp-p	75-ohm

Video outputs

VIDEO 1, 2	Composite video	1 Vp-p	75-ohm
VIDEO 3	Composite video (superimposition possible)	1 Vp-p	75-ohm
Y*	Component luminance	1 Vp-p negative sync	75-ohm
P_B, P_R*	Component color differences	0.7 Vp-p	75-ohm
G, B, R*	Analog GBR	0.7 Vp-p	75-ohm
BLACK BURST	Black burst	0.286 Vp-p (both B, S)	75-ohm
SYNC	Composite sync	4 Vp-p	75-ohm

Audio

INPUT CH1, 2	Audio input	+4/–20 dBm switchable	600-ohm/high-impedance switchable
OUTPUT CH 1, 2	Audio output	+4 dBm (nominal), variable	Low-impedance
MONITOR L, R	Monitor output (CH1/CH2 switchable)	+4 dBm (nominal), variable	Low-impedance
PHONES	Headphones output	Variable with PHONES control	

**** NOTE:***
The EXT REF input and input/output signals are switchable between Y/P_B/P_R and G/B/R on the control panel.

Time code (valid only when optional board is installed)

TIME CODE IN	SMPTE input	1.0 ~ 5.0 V p-p	10 k ohm
TIME CODE OUT	SMPTE output	2.4 Vp-p	Low impedance

Remote connectors

REMOTE 1	RS-422A interface	Input/output in compliance with 9-pin serial interface
REMOTE 2	RS-232C interface	Compatible with LD-V8000 serial interface
TBC REMOTE	TBC remote control	In compliance with BVW series
AUX	Reserved for future system expansion	

Supplied accessories

Operating Instructions x 1
Power cord x 1
RS-422A cable x 1
RS-232C connector (15P) x 1

Optional accessories

1. Time code board (VDA-V004)
2. Rack mount kit (VDA-V001)

NOTE:
Specifications and design subject to possible modification without notice, due to improvements.

Information on Servo mechanism Assembly

1. DXX2151

From VDR-V1000A, DXX2151 is used in place of DXX1766, however, DXX2151 is compatible with DXX1766.

2. CN991(9p conector) on MPU

In VDR-V1000A, after replacing the Servo mecha Assy with DXX2151 or 1766, make sure that additional shorting connector is not inserted in CN991 on MPU. CN991 is located in the front side and center position of MPU board. If the shorting connector is inserted, remove it.

Compatibility of VDR-V1000A Slot-in board assy

The following PCB assemblies are upper-compatible with VDR-V1000 and can be used in VDR-V1000.

ADDC(DWX1428)/MPU(DWX1339)/ADEM(DWX1340)/SPDL(DWX1344)
AMOD(DWX1348)

ROM Version No. of VDR-V1000A

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PC : 1.86 or greater
CC : 1.86
EX : 1.87
IF : 1.86
FP : 1.87
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